



CONTRACT NO: HK/2015/01

WANCHAI DEVELOPMENT PHASE II AND CENTRAL  
WANCHAI BYPASS  
SAMPLING, FIELD MEASUREMENT AND TESTING WORK  
(STAGE 3)

ENVIRONMENTAL PERMIT NO. EP-364/2009/D,  
FURTHER ENVIRONMENTAL PERMIT NOS. FEP-01/364/2009,  
FEP-02/364/2009, FEP-05/364/2009/A, FEP-06/364/2009/A, FEP-  
07/364/2009/D, FEP-09/364/2009/B, FEP-10/364/2009/B AND  
FEP-11/364/2009/B

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

- MAY 2016 -

CLIENTS:

Civil Engineering and Development  
Department  
  
and  
  
Highways Department

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DATE:

14 June 2016

Ref.: AACWBIECEM00\_0\_8183L.16

14 June 2016

AECOM Asia Company Limited  
11/F Tower 2 Grand Central Plaza  
138 Shatin Rural Committee Road  
Shatin New Territories  
Hong Kong

By Post and Fax (2691 2649)

Attention: Mr. Conrad Ng

Dear Mr. Ng,

**Re: Contract No. HK/2015/01  
Wan Chai Development Phase II - Central-Wan Chai Bypass  
Sampling, Field Measurement and Testing Works (Stage 3)**

**Monthly Environmental Monitoring and Audit Report (May 2016)  
for EP-364/2009/D, FEP-01/364/2009, FEP-02/364/2009, FEP-  
05/364/2009/A, FEP-06/364/2009/A, FEP-07/364/2009/D, FEP-  
09/364/2009/B, FEP-10/364/2009/B & FEP-11/364/2009/B**

Reference is made to the Environmental Team's submission of the captioned Monthly Environmental Monitoring and Audit (EM&A) Report for May 2016 received by e-mail on 14 June 2016 for our review and comment.

Please be informed that we have no adverse comment on the captioned submission. We write to verify the captioned submission in accordance with Condition 3.4 in the captioned Environmental Permits.

Thank you very much for your attention and please do not hesitate to contact the undersigned should you have any queries.

Yours sincerely,



David Yeung  
Independent Environmental Checker

|      |       |                                      |                   |
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**TABLE OF CONTENTS**

**EXECUTIVE SUMMARY**..... 4

**1. INTRODUCTION**..... 10

    1.1 Scope of the Report..... 11

    1.2 Structure of the Report..... 11

**2. PROJECT BACKGROUND**..... 13

    2.1 Background..... 13

    2.2 Scope of the Project and Site Description..... 13

    2.3 Division of the Project Responsibility..... 14

    2.4 Project Organization and Contact Personnel..... 15

**3. STATUS OF REGULATORY COMPLIANCE**..... 20

    3.1 Status of Environmental Licensing and Permitting under the Project..... 22

**4. MONITORING REQUIREMENTS**..... 36

    4.1 Noise Monitoring..... 36

    4.2 Air Quality Monitoring..... 38

**5. MONITORING RESULTS**..... 40

    5.1 Noise Monitoring Results..... 41

    5.2 Real Time Noise Monitoring Results..... 44

    5.3 Air Quality Monitoring Results..... 45

    5.4 Waste Monitoring Results..... 50

**6. COMPLIANCE AUDIT**..... 55

    6.1 Noise Monitoring..... 55

    6.2 Air Quality Monitoring..... 57

    6.3 Review of the Reasons for and the Implications of Non-compliance..... 58

    6.4 Summary of action taken in the event of and follow-up on non-compliance..... 58

**7. CUMULATIVE CONSTRUCTION IMPACT DUE TO THE CONCURRENT PROJECTS**..... 59

**8. ENVIROMENTAL SITE AUDIT**..... 60

**9. COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION**..... 64

**10. CONCLUSION**..... 66

**LIST OF TABLES**

|                   |   |
|-------------------|---|
| <b>Table 2.1</b>  | <b><i>Schedule 2 Designated Projects under this Project</i></b>   |
| <b>Table 2.2</b>  | <b><i>Details of Individual Contracts under the Project</i></b>   |
| <b>Table 2.3</b>  | <b><i>Contact Details of Key Personnel</i></b>  |
| <b>Table 3.1</b>  | <b><i>Summary of the current status on licences and/or permits on environmental protection pertinent to the Project</i></b> |
| <b>Table 3.2</b>  | <b><i>Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/01</i></b>                                |
| <b>Table 3.3</b>  | <b><i>Summary of submission status under FEP-02/364/2009</i></b>  |
| <b>Table 3.4</b>  | <b><i>Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/02</i></b>                                |
| <b>Table 3.5</b>  | <b><i>Summary of submission status under FEP-01/364/2009</i></b>  |
| <b>Table 3.6</b>  | <b><i>Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/18</i></b>                                |
| <b>Table 3.7</b>  | <b><i>Summary of submission status under FEP-05/364/2009/A</i></b>  |
| <b>Table 3.8</b>  | <b><i>Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/15</i></b>                                |
| <b>Table 3.9</b>  | <b><i>Summary of submission status under FEP-06/364/2009/A</i></b>  |
| <b>Table 3.10</b> | <b><i>Cumulative Summary of Valid License and Permits under Contract no. HY/2009/19</i></b>                                 |
| <b>Table 3.11</b> | <b><i>Summary of submission status under FEP-07/364/2009/D</i></b>  |
| <b>Table 3.12</b> | <b><i>Cumulative Summary of Valid License and Permits under Contract no. HK/2012/08</i></b>                                 |
| <b>Table 3.13</b> | <b><i>Summary of submission status under FEP-09/364/2009/B</i></b>  |
| <b>Table 3.14</b> | <b><i>Cumulative Summary of Valid License and Permits under Contract no. HY/2010/08</i></b>                                 |
| <b>Table 3.15</b> | <b><i>Summary of submission status under FEP-10/364/2009/B</i></b>  |
| <b>Table 3.16</b> | <b><i>Cumulative Summary of Valid License and Permits under Contract no. HY/2011/08</i></b>                                 |
| <b>Table 3.17</b> | <b><i>Summary of submission status under FEP-11/364/2009/B</i></b>  |
| <b>Table 4.1</b>  | <b><i>Noise Monitoring Stations</i></b>   |
| <b>Table 4.2</b>  | <b><i>Real Time Noise Monitoring Stations</i></b>   |
| <b>Table 4.3</b>  | <b><i>Air Quality Monitoring Stations</i></b>   |
| <b>Table 5.1</b>  | <b><i>Noise Monitoring Stations for Contract no. HY/2009/18</i></b>   |
| <b>Table 5.2</b>  | <b><i>Noise Monitoring Station for Contract no HK/2009/01 and HK/2009/02</i></b>  |
| <b>Table 5.3</b>  | <b><i>Noise Monitoring Stations for Contract no. HY/2009/15</i></b>   |
| <b>Table 5.4</b>  | <b><i>Noise Monitoring Stations for Contract no. HY/2009/19</i></b>   |
| <b>Table 5.5</b>  | <b><i>Noise Monitoring Stations for Contract no. HY/2010/08</i></b>   |
| <b>Table 5.6</b>  | <b><i>Noise Monitoring Stations for Contract no. HY/2011/08</i></b>   |
| <b>Table 5.7</b>  | <b><i>Real Time Noise Monitoring Stations for Contract no. HY/2009/19</i></b>   |
| <b>Table 5.8</b>  | <b><i>Real Time Noise Monitoring Stations for Contract no. HY/2011/08</i></b>   |
| <b>Table 5.9</b>  | <b><i>Air Quality Monitoring Station for Contract no. HY/2009/18</i></b>  |
| <b>Table 5.10</b> | <b><i>Air Quality Monitoring Station for Contract no. HK/2009/01</i></b>  |
| <b>Table 5.11</b> | <b><i>Air Quality Monitoring Station for Contract no. HK/2009/02</i></b>  |
| <b>Table 5.12</b> | <b><i>Air Quality Monitoring Stations for Contract no. HY/2009/15</i></b>   |
| <b>Table 5.13</b> | <b><i>Air Quality Monitoring Station for Contract no. HY/2009/19</i></b>  |
| <b>Table 5.14</b> | <b><i>Air Quality Monitoring Station for Contract no. HK/2012/08</i></b>  |
| <b>Table 5.15</b> | <b><i>Air Quality Monitoring Stations for Contract no. HY/2010/08</i></b>   |
| <b>Table 5.16</b> | <b><i>Air Quality Monitoring Stations for Contract no. HY/2011/08</i></b>   |
| <b>Table 5.17</b> | <b><i>Details of Waste Disposal for Contract no. HK/2009/01</i></b>   |
| <b>Table 5.18</b> | <b><i>Details of Waste Disposal for Contract no. HK/2009/02</i></b>   |
| <b>Table 5.19</b> | <b><i>Details of Waste Disposal for Contract no. HY/2009/18</i></b>   |
| <b>Table 5.20</b> | <b><i>Details of Waste Disposal for Contract no. HY/2009/15</i></b>   |
| <b>Table 5.21</b> | <b><i>Details of Waste Disposal for Contract no. HY/2009/19</i></b>   |
| <b>Table 5.22</b> | <b><i>Details of Waste Disposal for Contract no. HK/2012/08</i></b>   |
| <b>Table 5.23</b> | <b><i>Details of Waste Disposal for Contract no. HY/2010/08</i></b>   |
| <b>Table 5.24</b> | <b><i>Details of Waste Disposal for Contract no. HY/2011/08</i></b>   |
| <b>Table 8.1</b>  | <b><i>Summary of Environmental Inspections for Contract no. HY/2009/15</i></b>  |
| <b>Table 8.5</b>  | <b><i>Summary of Environmental Inspections for Contract no. HK/2009/02</i></b>  |
| <b>Table 8.6</b>  | <b><i>Summary of Environmental Inspections for Contract no. HK/2012/08</i></b>  |
| <b>Table 8.7</b>  | <b><i>Summary of Environmental Inspections for Contract no. HY/2010/08</i></b>  |
| <b>Table 9.1</b>  | <b><i>Cumulative Statistics on Complaints</i></b>   |



**Table 9.2** *Cumulative Statistics on Successful Prosecutions*  
**Table 10.1** *Summary of Key Construction Activities of Individual Contract(s) to be commenced in Coming Reporting Month*

**LIST OF FIGURES**

Figure 2.1 Project Layout  
Figure 2.2 Project Organization Chart  
Figure 4.1 Locations of Environmental Monitoring Stations

**LIST OF APPENDICES**

Appendix 3.1 Environmental Mitigation Implementation Schedule  
Appendix 4.1 Action and Limit Level  
Appendix 4.2 Copies of Calibration Certificates  
Appendix 5.1 Monitoring Schedule for Reporting Month and Coming month  
Appendix 5.2 Noise Monitoring Results and Graphical Presentations  
Appendix 5.3 Air Quality Monitoring Results and Graphical Presentations  
Appendix 5.4 Real-time Noise Monitoring Results and Graphical Presentations  
Appendix 6.1 Event Action Plans  
Appendix 6.2 Notification of Exceedance  
Appendix 9.1 Complaint Log  
Appendix 10.1 Construction Programme of Individual Contracts

**EXECUTIVE SUMMARY**

- i. This is the Environmental Monitoring and Audit (EM&A) Monthly Report – [May 2016](#) specific for Environmental Permit no. EP-364/2009/D, Further Environmental Permit nos. FEP-01/364/2009, FEP-02-364/2009, FEP-05/364/2009/A, FEP-06/364/2009/A FEP-07/364/2009/D, FEP-09/364/2009/B, FEP-10/364/2009/B and FEP-11/364/2009/B. The EM&A report is prepared by the Environmental Team (ET) employed under Contract No. HK/2015/01 – Wan Chai Development Phase II and Central Wanchai Bypass – Sampling, Field Measurement and Testing Works (Stage 3). This report presents the environmental monitoring findings and information recorded during the period of [27 April 2016 to 26 May 2016](#).
- ii. The implementation of the Environmental Monitoring and Audit Programme for the Wan Chai Development phase II and Central-Wan Chai Bypass Project has been taken over by the Lam Geotechnics Limited (LGL) under Contract HK/2015/01 – Wan Chai Development Phase II and Central Wanchai Bypass – Sampling, Field Measurement and Testing Works (Stage 3) from 27 December 2015 in continuation of the previous Environmental Team employed under Contact HK/2011/07 – Wan Chai Development Phase II and Central Wanchai Bypass – Sampling, Field Measurement and Testing Works (Stage 2).
- iii. In the reporting month, the principal work activities of individual contracts are included as follows:

Contract no. HY/2009/18 - Central - Wan Chai Bypass (CWB) - Central Interchange under FEP-05/364/2009/A

- [Drainage works](#)
- [Road works](#)
- [Landscaping works](#)
- [Modification and Construction of Sign Gantries / Traffic Signs](#)
- [Maintenance works](#)

Contract no. HK/2009/01 - Wan Chai Development Phase II - Central - Wan Chai Bypass at Hong Kong Convention and Exhibition Centre - Tunnel Works under FEP-02/364/2009

- [Stage 3b backfilling works](#)
- [Stage 4 construction tunnel structure](#)
- [Reinstatement of outfall](#)
- [Reinstatement of triangular planter at Fenwick Pier Street](#)

Contract no. HK/2009/02 - Wan Chai Development Phase II - Central - Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- [Site clearance works was on going at OHVD at Tunnel Portion 1.](#)
- [Site clearance works was on going at OHVD at Tunnel Portion 2.](#)
- [Waterproofing work for side wall](#)
- [Middle wall and side wall construction](#)
- [Tunnel top slab construction](#)

- Diaphragm wall panel construction
- Instrumentation work was on going
- Excavation work

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- Dismantle steel work at TPCWAW
- Remedial works at Mined Tunnel
- Remedial works at TS4, TPCWAE
- Reinstatement of Shaft B between TPCWAW and TPCWAE

Contract no. HY/2009/19 - Central - Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- Pier construction for IEC
- Construction of EVB
- Column modification at F1 to F8
- Oil Street drainage works
- Bridge construction and segment erection
- Hing Fat Street modification works
- EVA structure construction
- Hing Fat Street Slip Road Bridge E L3 railing construction
- Approach ramp sheet piling works
- EVB waterproofing works

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West under FEP-09/364/2009B

- Grouting
- Construction of MVB
- Construction of concrete plug
- Excavation and lateral support installation for CWB tunnel
- Structural works for CWB tunnel construction

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8) under FEP-10/364/2009B

- Tree protection works next to existing BGO,
- Drainage improvement works,
- Excavation and Lateral Support for U-structure,
- Pipe piling & grouting works,
- Utility diversion works,
- Retaining wall works
- ELS works,
- Construction works for subway extension



Contract no. HY/2011/08 –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- Construction of Ventilation Buildings, inclusive of Administration Building, East Ventilation Shaft West Ventilation Building
- Construction of Tunnel Thermal Barrier
- Installation of Electricals and Mechanicals
- Installation of Tunnel Features



### Noise Monitoring

- iv. Noise monitoring during daytime was conducted at M1a - Harbour Road Sports Center; M2b - Noon-day gun area; M3a - Tung Lo Wan Fire Station; M4b - Victoria Center; M5b - City Garden, M6 - HK Baptist Church Henrietta Secondary School, M7e and M7w – International Financial Centre East Podium and International Finance Centre West Podium and M8 – City Hall on weekly basis in the reporting month.
- v. Two limit level exceedances were recorded at noise monitoring station M1a – Harbour Road Sports Center on 04 and 24 May 2016. The exceedances were concluded as non-project related.
- vi. 24-hour real time noise monitoring was conducted at RTN1 - FEHD Hong Kong Transport Section Whitfield Depot for construction activities at IEC bridge deck. No limit level exceedance was recorded in the reporting month.
- vii. 24-hour real time noise monitoring was conducted at RTN2a – Hong Kong Electric Centre. No limit level exceedance was recorded in the reporting month.
- viii. 24-hour real time noise monitoring was conducted at RTN3 – Yu Lee Mo Fan Memorial School. No project related exceedance was recorded in the reporting month.
- ix. 24-hour real time noise monitoring was conducted at RTN4 – Causeway Bay Community Centre. No project related exceedance was recorded in the reporting month.

### Air Quality Monitoring

- x. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted at CMA1b – Oil Street Site Office; CMA2a - Causeway Bay Community Center; CMA3a - CWB PRE Site Office Area; CMA4a – Society for the Prevention of Cruelty to Animals; CMA5b - Pedestrian Plaza; MA1e and MA1w – International Finance Centre eastern and western podium on every six days basis.
- xi. No action or limit level exceedance was recorded in the reporting month.
- xii. Due to interruption of electricity supply, the following TSP monitoring were rescheduled :-  
The 24hr TSP monitoring at air quality monitoring station CMA5b was rescheduled from 20 May 2016 to 21 May 2016.  
The 1hr TSP monitoring at air quality monitoring station CMA2a was rescheduled from 05 May 2016 to 07 May 2016.  
The 1hr TSP monitoring at air quality monitoring station CMA5b was rescheduled from 17 May 2016 to 20 May 2016.

### Complaints, Notifications of Summons and Successful Prosecutions

- xiii. One environmental complaint was received in the reporting month.
- xiv. A EPD complaint regarding noise nuisance referred by RSS was received by ET on 27 May 2016 (EPD Ref: H05/RS/00012646-16 dated 27 May 2016). The complainant reported that a generator was operated round-the-clock in the Chun Wo- CRGL JV construction site near Wanchai Ferry Pier that cause noise nuisance. (Contract No. HK/2009/02).

ET confirmed with the Resident Site Staff that a generator deployed under Contract HK/2009/02 near the covered walkway for Wanchai Ferry Pier at Portion 2 area and was operated from 1900hrs on 24 May 2016 to 0700hrs on 25 May 2016 and from 1900hrs on 25

May 2016 to 0700hrs on 26 May 2016. The generator was used for the power supply of lighting inside Tunnel Portions 1 and 2.

According to the relevant site records provided by RSS, a generator deployed under Contract HK/2009/02 near the covered walkway for Wanchai Ferry Pier at Portion 2 area and was operated from 1900hrs on 24 May 2016 to 0700hrs on 25 May 2016 and from 1900hrs on 25 May 2016 to 0700hrs on 26 May 2016. The generator was used for the power supply of lighting inside Tunnel Portions 1 and 2. Based on review on site information, relevant Construction Noise Permits GW-RS0516-16 and GW-RS0390-16 for the operation of the concerned generator were confirmed in place while no sufficient site information was considered available to demonstrate the use of acoustic enclosure for the operation of the generator following the special condition 3d item 4. Despite the above, the Contractor of HK/2009/02 has suspended the use of the generator at the concerned location after 2300hours to minimize potential noise concern to the surroundings from 28 May 2016.

Nevertheless, the Contractor of HK/2009/02 was reminded to upkeep the site control system for construction works carried out during restricted hours and night time for Construction Noise Permit compliance and maintain regular maintenance of the plant and equipment deployed to avoid potential nuisance to the nearby public.

#### Site Inspections and Audit

- xv. The Environmental Team (ET) conducted weekly site inspections for Contract no. HY/2009/15, HY/2009/18, HY/2009/19, HY/2010/08, HK/2009/01, HK/2009/02, HK/2012/08 and HY/2011/08 in this reporting period.
- xvi. Construction of bored pile E3B under HY/2009/17 was confirmed completed and the respective work area under FEP-03/364/2009 was handover and inspected under HY/2009/19 from 19 Dec 2012 onwards.
- xvii. Construction works under HK/2010/06 was confirmed completed and the respective work area under FEP-08/364/2009/A was handover and inspected under HK/2012/08 from 22 Sep 2014 onwards.
- xviii. The Contractors rectified major observations and recommendations made during the audit sessions. No non-conformance was identified during the site inspections.

Future Key Issues

- xix. In the coming reporting month, the principal work activities of individual contracts are anticipated as follows:

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

- Drainage works
- Road works
- Landscaping works
- Modification and Construction of Sign Gantries / Traffic Signs
- Maintenance works

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

- Stage 4 backfilling works
- Reinstatement of outfall

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- Construction of pre-cast concrete cover
- Tunnel OHVD construction
- Tunnel wall and top slab construction
- Waterproofing layer at tunnel top slab
- Road side barrier construction
- ELS S4 removal and king post load transfer
- Tunnel backfilling
- Removal of remaining temporary sheet-pile seawall
- Removal of blockwork seawall near the interface between Portion 2 and Portion 5
- Diaphragm wall construction
- Excavation work
- Strut installation
- Demolition of ex-WSD salt water pumping station

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- Remedial works at Mined Tunnel
- Remaining works inside tunnel at TS4 and TPCWAE
- Removal of temporary reclamation at TPCWAW

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- Pier construction for IEC
- Construction of EVB
- Column modification at F1 to F8
- Oil Street drainage works
- Approach ramp sheet piling and pre-bored piling works
- Bridge construction and segment erection
- Hing Fat Street modification works
- EVA structure construction
- Hing Fat Street Slip Road Bridge E parapet construction
- EVB waterproofing works
- Excavation / Construction of retaining wall

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West under FEP-09/364/2009/B

- Grouting
- Construction of MVB
- Construction of concrete plug
- Excavation and lateral support installation for CWB tunnel
- Structural works for CWB tunnel construction

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8) under FEP-10/364/2009

- Tree protection works next to existing BGO,
- Drainage improvement works,
- Excavation and Lateral Support for U-structure,
- Pipe piling & grouting works,
- Utility diversion works,
- Retaining wall works
- ELS works,
- D-wall drill cutting works
- Construction works for subway extension

Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- Construction of Ventilation Buildings, inclusive of Administration Building, East Ventilation Shaft, West Ventilation Building
- Construction of Tunnel Thermal Barrier
- Installation of Electricals and Mechanicals
- Installation of Tunnel Features

## 1 INTRODUCTION

### 1.1 Scope of the Report

1.1.1. Lam Geotechnics Limited (LGL) has been appointed to work as the Environmental Team (ET) under Environmental Permit no. EP-364/2009/D and Further Environmental permit nos. FEP-01/364/2009, FEP-02/364/2009, FEP-05/364/2009/A, FEP-06/364/2009/A, FEP-07/364/2009/D, FEP-09/364/2009/B, FEP-10/364/2009B and FEP-11/364/2009B to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) and in the EM&A Manual of the approved EIA Report for Central-Wan Chai Bypass and Island Eastern Corridor Link (Register No. AEIAR-041/2001).

1.1.2. This report presents the environmental monitoring and auditing work carried out in accordance to the Section 10.3 of EM&A Manual and “*Environmental Monitoring and Audit Requirements*” under Particular Specification Section 27.

1.1.3. This report documents the finding of EM&A works for Environmental Permit (EP) no. EP-364/2009/D, Further Environmental Permit (FEP) nos. FEP-01-364/2009, FEP-02/364/2009, FEP-05/364/2009/A, FEP-06/364/2009/A, FEP-07/364/2009/D, FEP-09/364/2009/B, FEP-10/364/2009/B and FEP-11/364/2009/B during the period [27 April 2016 to 26 May 2016](#).

### 1.2 Structure of the Report

**Section 1** *Introduction* – details the scope and structure of the report.

**Section 2** *Project Background* – summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.

**Section 3** *Status of Regulatory Compliance* – summarizes the status of valid Environmental Permits / Licenses during the reporting period.

**Section 4** *Monitoring Requirements* – summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency, criteria and respective event and action plan and monitoring programmes.

**Section 5** *Monitoring Results* – summarizes the monitoring results obtained in the reporting period.

**Section 6** *Compliance Audit* – summarizes the auditing of monitoring results, all exceedances environmental parameters.

**Section 7** *Cumulative Construction Impact due to the Concurrent Projects* – summarizes the relevant cumulative construction impact due to the concurrent

activities of the concurrent Projects.

**Section 8**     ***Environmental Site Audit*** – summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any relevant follow-up actions within the reporting period.

**Section 9**     ***Complaints, Notification of summons and Prosecution*** – summarizes the cumulative statistics on complaints, notification of summons and prosecution

**Section 10**    ***Conclusion***

## 2 PROJECT BACKGROUND

### 2.1 Background

2.1.1. “Wan Chai Development phase II and Central-Wan Chai Bypass” and “Central-Wan Chai Bypass and Island Eastern Corridor Link” (hereafter called “the Project”) are Designated Project (DP) under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). The Environmental Impact Assessment (EIA) Reports for Central-Wan Chai Bypass and Island Eastern Corridor Link (Register No. AEIAR-041/2001) and Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) have been approved on 31 August 2001 and 11 December 2008 respectively.

2.1.2. The key purpose of Wan Chai Development Phase II (WDII) is to provide land at Wan Chai North and North Point for construction of the Central-Wan Chai Bypass and Island Eastern Corridor Link (CWB). Land formed under the project will be developed as a world-class waterfront promenade joining that at the new Central waterfront for public enjoyment.

2.1.3. There is a compelling and present need for the CWB to provide relief to the very congested east-west Connaught Road Central/Harcourt Road / Gloucester Road Corridor (the Corridor) which is currently operating beyond its capacity. The CWB will provide relief to the existing congestion along the Corridor and cater for the anticipated growth of traffic on Hong Kong Island. Without the CWB and its access roads, there will not be sufficient capacity to serve the heavy traffic demands at both strategic and local levels.

### 2.2 Scope of the Project and Site Description

2.2.1. Design and Construction of Central – Wan Chai Bypass and Island Eastern Corridor Link under the Project involves the construction and operation of a trunk road and its road tunnel more than 800m in length between portals that is shown at Figure 2.1.

2.2.2. The study area encompasses existing developments from Central to North Point. The scope of the Central-Wanchai Bypass (CWB) and Island Eastern Corridor Link (IECL) includes:

- A dual three-lane trunk road, approximately 4.5 km in length, and tunnel approximately 3.7 km in length defined from the connection with the existing Rumsey Street Flyover in Central, through to a connection with the existing Island Eastern Corridor to the east of the Causeway Bay Typhoon Shelter (CBTS);
- The Central Interchange near the Rumsey Street Flyover to provide road connections to the Central area;
- Tunnel control buildings and ventilation buildings;
- Slip roads to connect the CWB to the local road system in the Wan Chai North and Causeway Bay area;
- Associated road lighting, road signing, traffic control and surveillance system; and
- Other associated works.

2.2.3. The project also contains various Schedule 2 DPs that, under the EIAO, require Environmental Permits (EPs) to be granted by the DEP before they may be either constructed or operated. **Table 2.1** summarises the five individual DPs under this Project. **Figure 2.1** shows the locations of these Schedule 2 DPs.

**Table 2.1 Schedule 2 Designated Projects under this Project**

| Item | Designated Project   | EIAO Reference                   | Reason for inclusion   |
|------|--|----------------------------------|--|
| DP1  | Central-Wanchai Bypass (CWB) including its road tunnel and slip roads              | Schedule 2, Part I, A.1 and A.7  | Trunk road and road tunnel more than 800 m in length   |
| DP2  | Road P2 and other roads which are classified as primary/district distributor roads | Schedule 2, Part I, A.1          | Primary / district distributor roads   |
| DP3  | Reclamation works including associated dredging works                              | Schedule 2, Part I, C.1 and C.12 | Reclamation more than 5 ha in size and a dredging operation less than 100 m from a seawater intake point   |
| DP5  | Wan Chai East Sewage Outfall   | Schedule 2, Part I, F.5 and F.6  | Submarine sewage pipelines with a total diameter more than 1,200 mm and include a submarine sewage outfall |
| DP6  | Dredging for the Cross-harbour Water Mains from Wan Chai to Tsim Sha Tsui          | Schedule 2, Part I, C.12         | A dredging operation less than 100 m from a seawater intake point  |

### 2.3 Division of the Project Responsibility

2.3.1. Due to the multi-contract nature of the Project, there are a number of contracts sub-dividing the whole works area into different work areas to be commenced. Contractors of individual contracts will be required by the EP holder to apply Further Environmental Permits such that the impact monitoring stations are sub-divided accordingly to facilitate the implementation of EM&A programme and to streamline the EM&A reporting for individual FEP holders correspondingly.

2.3.2. The details of individual contracts are summarized in **Table 2.2**.

**Table 2.2 Details of Individual Contracts under the Project**

| Contract No. | Contract Title   | Associated DP(s) | Construction Commencement Date |
|--------------|--|------------------|--------------------------------|
| HY/2009/17   | Central – Wan Chai Bypass (CWB) at FEHD Whitfield Depot – Advanced piling works.                                       | DP1              | 5 October 2010<br>(Completed)  |
| HY/2009/18   | Central – Wan Chai Bypass (CWB) – Central Interchange  | DP1              | 21 April 2011                  |
| 04/HY/2006   | Reconstruction of Bus Terminus near Man Yiu Street and Man Kwong Street  | DP1              | September 2010<br>(Completed)  |
| HK/2009/01   | Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works | DP1, DP2         | 25 August 2011                 |



| Contract No. | Contract Title   | Associated DP(s) | Construction Commencement Date |
|--------------|--|------------------|--------------------------------|
| HK/2009/02   | Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East(CWB Tunnel)                                   | DP1              | 26 April 2011                  |
| HY/2009/15   | Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)   | DP1,DP3          | 13 July 2011                   |
| HY/2009/19   | Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link                                   | DP1              | 24 March 2011                  |
| HK/2010/06   | Wan Chai Development Phase II- Central-Wan Chai Bypass over MTR Tsuen Wan Line   | DP3              | 22 March 2011<br>(Completed)   |
| HK/2012/08   | Wan Chai Development Phase II- Central-Wan Chai Bypass at Wan Chai West  | DP1,DP2, DP3     | 10 March 2014                  |
| HY/2010/08   | Central- Wanchai Bypass Tunnel – Tunnel (Slip Road 8)  | DP1, DP2, DP3    | 21 March 2013                  |
| HY/2011/08   | Central - Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning | DP1              | 8 October 2014                 |

## 2.4 Project Organization and Contact Personnel

2.4.1. Civil Engineering and Development Department and Highways Department are the overall project controllers for the Wan Chai Development Phase II and Central-Wan Chai Bypass respectively. For the construction phase of the Project, Project Engineer, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.

2.4.2. The proposed project organization and lines of communication with respect to environmental protection works are shown in **Figure 2.2**. Key personnel and contact particulars are summarized in **Table 2.3**:

**Table 2.3 Contact Details of Key Personnel**

| Party                          | Role                                     | Post                        | Name            | Contact No. | Contact Fax |
|--------------------------------|--|-----------------------------|-----------------|-------------|-------------|
| AECOM                          | Engineer's Representative for WDII       | Principal Resident Engineer | Mr. Frankie Fan | 2587 1778   | 2587 1877   |
|                                | Engineer's Representative for CWB        | Principal Resident Engineer | Mr. Peter Poon  | 3912 3388   | 3912 3010   |
| Chun Wo – Leader Joint Venture | Contractor under Contract no. HK/2009/01 | Project Manager             | Mr. Simon Liu   | 2162 9909   | 2634 1626   |
|                                |  | Site Agent                  | Mr. Andy Yu     | 9648 4896   |             |
|                                |  | Construction Manager        | Mr. Terry Wong  | 9757 9846   |             |
|                                |  | Construction Manager        | Mr. Wyman Wong  | 9627 2467   |             |



| Party  | Role                                     | Post  | Name             | Contact No. | Contact Fax |
|--|--|---|------------------|-------------|-------------|
|  |  | Construction Manager                          | Mr. Terry Tsang  | 6683 9394   |             |
|  |  | Environmental Officer                         | Ms. Wendy Ng     | 9803 0057   |             |
|  |  | Assistant Environmental Engineer              | Ms. Connie Chan  | 6157 7057   |             |
| Chun Wo – CRGL Joint Venture                   | Contractor under Contract no. HK/2009/02 | Site Agent                                    | Mr. K.K. Yuen    | 3658-3002   | 2827 9996   |
|  |  | Project Manager                               | Mr. Paul Yu      | 3658 3085   |             |
|  |  | Environmental Officer                         | Mr. C.P. Ho      | 9191 8856   |             |
| Chun Wo - CRGL - MBEC_Joint Venture            | Contractor under Contract no. HY/2009/19 | Project Manager                               | Mr. David Lau    | 3758 8879   | 2570 8013   |
|  |  | Deputy Project Manager                        | Mr. William Luk  | 9456 9819   |             |
|  |  | Deputy Site Agent                             | Eric Fong        | 6191 9337   |             |
|  |  | Environmental Manager / Environmental Officer | Mr. M.H. Isa     | 9884 0810   |             |
|  |  | Environmental Engineer                        | Mr. Calvin Leung | 9286 9208   |             |
| Leighton Contractors (Asia) Limited            | Contractor under Contract no. HY/2009/18 | Site Agent                                    | Mr. Jimmy Chu    | 2214 7700   | 2140 6799   |
|  |  | Deputy Site Agent                             | Mr. Bob Yeung    | 2214 7703   |             |
|  |  | Environmental Officer                         | Mr. Chris Chan   | 2823 1161   |             |
|  |  | Assistant Environmental Engineer              | Mr. Christy So   | 3937 1065   |             |
| China State Construction Engineering (HK) Ltd. | Contractor under Contract no. HY/2009/15 | Project Director                              | Mr. Chris Leung  | 3557 6393   | 2865 5229   |
|  |  | Site Manager                                  | Mr. Y. Huo       | 3557 6368   | 2566 2192   |
|  |  | Contractor's Representative                   | Mr. Andrew Wong  | 3557 6371   |             |
|  |  | Environmental Officer                         | Mr. Andy Mak     | 3557 6215   |             |
|  |  | Environmental Supervisor                      | Mr. Harry Wong   | 3557 6348   |             |
| China State-Leader JV                          | Contractor under Contract no. HK/2012/08 | Project Director                              | Mr. C.N. Lai     | 9137 1811   | 2877 1522   |
|  |  | Project Manager                               | Mr. Eddie Chung  | 9193 8871   |             |
|  |  | Site Agent                                    | Mr. Keith Tse    | 9095 7922   |             |
|  |  | Environmental Officer                         | Mr. James MA     | 9130 9549   |             |



| Party                             | Role                                     | Post                                    | Name                   | Contact No. | Contact Fax |
|-----------------------------------|--|---|------------------------|-------------|-------------|
|                                   |  | Environmental Supervisor                | Mr. Y.L. Ho            | 6050 4919   |             |
| China State                       | Contractor under Contract no.HY/2010/08  | Project Director                        | Cheung Kit Cheung      | 3557 6399   | 2566 8061   |
|                                   |  | Project Manager                         | Chan Ying Lun          | 9812 0592   |             |
|                                   |  | Deputy Project Manager                  | Chris Leung            | 3467 4299   |             |
|                                   |  | Site Agent                              | Dr. Dave Chan          | 3467 4277   |             |
|                                   |  | Environmental Officer                   | Mr. C.M. Wong          | 3557 6464   |             |
|                                   |  | Environmental Supervisor                | Mr. Louis Lam Tsz Kwan | 3557 6470   |             |
| Leighton Joint Venture            | Contractor under Contract no. HY/2011/08 | Project Manager                         | Paul Evans             | 2823 1111   | 21406799    |
|                                   |  | Site Agent                              | Colman Wong            | 9730 0806   |             |
|                                   |  | Environmental Officer                   | Malcom Leung           | 3973 0850   |             |
|                                   |  | Environmental Supervisor                | Christy So             | 3973 1065   |             |
| Ramboll Environ Hong Kong Limited | Independent Environmental Checker (IEC)  | Independent Environmental Checker (IEC) | Mr. David Yeung        | 3465 2888   | 3465 2899   |
| Lam Geotechnics Limited           | Environmental Team (ET)                  | Environmental Team Leader (ETL)         | Mr. Raymond Dai        | 2882 3939   | 2882 3331   |

2.4.3. In this reporting month, the principal work activities of individual contracts are included as follows:

Contract no. HY/2009/18 - Central - Wan Chai Bypass (CWB) - Central Interchange under FEP-05/364/2009/A

- Drainage works
- Road works
- Landscaping works
- Modification and Construction of Sign Gantries / Traffic Signs
- Maintenance works

Contract no. HK/2009/01 - Wan Chai Development Phase II - Central - Wan Chai Bypass at Hong Kong Convention and Exhibition Centre - Tunnel Works under FEP-02/364/2009

- Stage 3b backfilling works
- Stage 4 construction tunnel structure
- Reinstatement of outfall
- Reinstatement of triangular planter at Fenwick Pier Street

Contract no. HK/2009/02 - Wan Chai Development Phase II - Central - Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- Site clearance works was on going at OHVD at Tunnel Portion 1.
- Site clearance works was on going at OHVD at Tunnel Portion 2.
- Waterproofing work for side wall
- Middle wall and side wall construction
- Tunnel top slab construction
- Diaphragm wall panel construction
- Instrumentation work was on going
- Excavation work

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- Dismantle steel work at TPCWAW
- Remedial works at Mined Tunnel
- Remedial works at TS4, TPCWAE
- Reinstatement of Shaft B between TPCWAW and TPCWAE

Contract no. HY/2009/19 - Central - Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- Pier construction for IEC
- Construction of EVB
- Column modification at F1 to F8
- Oil Street drainage works
- Bridge construction and segment erection
- Hing Fat Street modification works
- EVA structure construction

- Hing Fat Street Slip Road Bridge E L3 railing construction
- Approach ramp sheet piling works
- EVB waterproofing works

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West under FEP-09/364/2009B

- Grouting
- Construction of MVB
- Construction of concrete plug
- Excavation and lateral support installation for CWB tunnel
- Structural works for CWB tunnel construction

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8) under FEP-10/364/2009B

- Tree protection works next to existing BGO,
- Drainage improvement works,
- Excavation and Lateral Support for U-structure,
- Pipe piling & grouting works,
- Utility diversion works,
- Retaining wall works
- ELS works,
- Construction works for subway extension

Contract no. HY/2011/08 –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- Construction of Ventilation Buildings, inclusive of Administration Building, East Ventilation Shaft West Ventilation Building
- Construction of Tunnel Thermal Barrier
- Installation of Electricals and Mechanicals
- Installation of Tunnel Features

2.4.4. In coming reporting month, the principal work activities of individual contracts are anticipated as follows:

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

- Drainage works
- Road works
- Landscaping works
- Modification and Construction of Sign Gantries / Traffic Signs
- Maintenance works

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

- Stage 4 backfilling works
- Reinstatement of outfall

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- Construction of pre-cast concrete cover
- Tunnel OHVD construction
- Tunnel wall and top slab construction
- Waterproofing layer at tunnel top slab
- Road side barrier construction
- ELS S4 removal and king post load transfer
- Tunnel backfilling
- Removal of remaining temporary sheet-pile seawall
- Removal of blockwork seawall near the interface between Portion 2 and Portion 5
- Diaphragm wall construction
- Excavation work
- Strut installation
- Demolition of ex-WSD salt water pumping station

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- Remedial works at Mined Tunnel
- Remaining works inside tunnel at TS4 and TPCWAE
- Removal of temporary reclamation at TPCWAW

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- Pier construction for IEC
- Construction of EVB
- Column modification at F1 to F8
- Oil Street drainage works
- Approach ramp sheet piling and pre-bored piling works
- Bridge construction and segment erection
- Hing Fat Street modification works
- EVA structure construction
- Hing Fat Street Slip Road Bridge E parapet construction
- EVB waterproofing works
- Excavation / Construction of retaining wall

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West under FEP-09/364/2009/B

- Grouting
- Construction of MVB
- Construction of concrete plug
- Excavation and lateral support installation for CWB tunnel
- Structural works for CWB tunnel construction

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8) under FEP-10/364/2009

- Tree protection works next to existing BGO,
- Drainage improvement works,
- Excavation and Lateral Support for U-structure,
- Pipe piling & grouting works,
- Utility diversion works,
- Retaining wall works
- ELS works,
- D-wall drill cutting works
- Construction works for subway extension

Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- Construction of Ventilation Buildings, inclusive of Administration Building, East Ventilation Shaft, West Ventilation Building
- Construction of Tunnel Thermal Barrier
- Installation of Electricals and Mechanicals
- Installation of Tunnel Features

### 3 STATUS OF REGULATORY COMPLIANCE

#### 3.1 Status of Environmental Licensing and Permitting under the Project

3.1.1. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in **Table 3.1**.

**Table 3.1 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project**

| Permits and/or Licences      | Reference No.     | Issued Date  | Status      |
|------------------------------|-------------------|--------------|-------------|
| Environmental Permit         | EP-356/2009       | 30 Jul 2009  | Valid       |
| Environmental Permit         | EP-364/2009       | 17 Aug 2009  | Superseded  |
| Environmental Permit         | EP-364/2009/A     | 4 Aug 2010   | Superseded  |
| Environmental Permit         | EP-364/2009/B     | 20 Sep 2012  | Superseded  |
| Environmental Permit         | EP-364/2009/C     | 11 Jul 2014  | Superseded  |
| Environmental Permit         | EP-364/2009/D     | 24 Nov 2015  | Valid       |
| Environmental Permit         | EP-376/2009       | 13 Nov 2010  | Valid       |
| Further Environmental Permit | FEP-01/356/2009   | 18 Feb 2010  | Surrendered |
| Further Environmental Permit | FEP-02/356/2009   | 24 Mar 2010  | Valid       |
| Further Environmental Permit | FEP-03/356/2009   | 24 Mar 2010  | Valid       |
| Further Environmental Permit | FEP-04/356/2009   | 15 Nov 2010  | Valid       |
| Further Environmental Permit | FEP-05/356/2009   | 24 Mar 2011  | Surrendered |
| Further Environmental Permit | FEP-06/356/2009   | 5 March 2013 | Valid       |
| Further Environmental Permit | FEP-07/356/2009   | 26 July 2013 | Valid       |
| Further Environmental Permit | FEP-01/364/2009   | 24 Mar 2010  | Valid       |
| Further Environmental Permit | FEP-02/364/2009   | 21 Apr 2010  | Valid       |
| Further Environmental Permit | FEP-03/364/2009   | 12 July 2010 | Surrendered |
| Further Environmental Permit | FEP-04/364/2009/A | 14 Oct 2010  | Surrendered |
| Further Environmental Permit | FEP-05/364/2009/A | 15 Nov 2010  | Valid       |
| Further Environmental Permit | FEP-06/364/2009/A | 22 Nov 2010  | Valid       |
| Further Environmental Permit | FEP-07/364/2009/A | 25 Feb 2011  | Superseded  |
| Further Environmental Permit | FEP-07/364/2009/D | 24 Nov 2015  | Valid       |
| Further Environmental Permit | FEP-08/364/2009/A | 15 June 2012 | Surrendered |



|                              |                   |              |       |
|------------------------------|-------------------|--------------|-------|
| Further Environmental Permit | FEP-09/364/2009/B | 5 March 2013 | Valid |
| Further Environmental Permit | FEP-10/364/2009/B | 26 July 2013 | Valid |
| Further Environmental Permit | FEP-11/364/2009/B | 2 May 2014   | Valid |

3.1.2. Due to the multi-contract nature of the Project, the status of permits and/or licences under the individual contract(s) are presented as below:

Contract no. HY/2009/17 – Central – Wan Chai Bypass (CWB) at FEHD Whitfield Depot – Advanced piling works under FEP-03/364/2009

3.1.3. The construction works was completed and the FEP-03/364/2009 was surrendered by the Contractor on 28 March 2013.

Contract no. 04/HY/2006 – Reconstruction of Bus Terminus near Man Yiu Street and Man Kwong Street under FEP-04/364/2009/A

3.1.4. The construction works was completed, and the FEP-04/HY/2006 was surrendered by the Contractor on 11 February 2011.

Contract no. HK/2010/06 - Wan Chai Development Phase II - Central - Wan Chai Bypass over MTR Tsuen Wan Line under FEP-08/364/2009/A

3.1.5. The construction works was completed, and the FEP-08/364/2009/A was surrendered by the Contractor on 3 October 2014.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

3.1.6. Summary of the current status on licences and/or permits on environmental protection pertinent and submission under FEP-02/364/2009 for contract no. HK/2009/01 are shown in **Table 3.2** and **Table 3.3**.

**Table 3.2 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/01**

| Permits and/or Licences                                   | Reference No.   | Issued Date                | Valid Period/ Expiry Date   | Status    |
|---|-----------------|----------------------------|-----------------------------|-----------|
| Further Environmental Permit                              | FEP-02/356/2009 | 24 Mar 2010                | N/A                         | Valid     |
|   | FEP-02/364/2009 | 21 Apr 2010                | N/A                         | Valid     |
| Notification of Works Under APCO                          | 313088          | 06 Jan 2010                | N/A                         | Valid     |
| Construction Noise Permit (CNP) for non-pilling equipment | GW-RS1134-15    | 23 Oct 2015                | 08 Nov 2015 to 07 May 2016  | Cancelled |
|   | GW-RS1135-15    | 23 Oct 2015                | 26 Nov 2015 to 25 May 2016  | Expired   |
|   | GW-RS1228-15    | 13 Nov 2015                | 16 Nov 2015 to 13 May 2016  | Expired   |
|   | GW-RS1309-15    | 27 Nov 2015                | 30 Nov 2015 to 26 May 2016  | Expired   |
|   | GW-RS1338-15    | 11 Dec 2015                | 01 Jan 2016 to 30 June 2016 | Cancelled |
|   | GW-RS0041-16    | 22 Jan 2016                | 25 Jan 2016 to 23 Jul 2016  | Cancelled |
|   | GW-RS0089-16    | 05 Feb 2016                | 20 Feb 2016 to 19 July 2016 | Cancelled |
|   | GW-RS0093-16    | 05 Feb 2016                | 22 Feb 2016 to 21 July 2016 | Cancelled |
|   | GW-RS0152-16    | 18 Feb 2016                | 25 Feb 2016 to 24 Aug 2016  | Cancelled |
|   | GW-RS0243-16    | 11 Mar 2016                | 14 Mar 2016 to 13 Sep 2016  | Cancelled |
|   | GW-RS0384-16    | 19 Apr 2016                | 22 Apr 2016 to 19 Oct 2016  | Valid     |
|   | GW-RS0435-16    | 03 May 2016                | 08 May 2016 to 07 Nov 2016  | Valid     |
| GW-RS0482-16  | 17 May 2016     | 19 May 2016 to 18 Nov 2016 | Valid                       |           |

| Permits and/or Licences                        | Reference No.        | Issued Date | Valid Period/ Expiry Date  | Status |
|--|----------------------|-------------|----------------------------|--------|
|  | GW-RS0486-16         | 17 May 2016 | 19 May 2016 to 18 Nov 2016 | Valid  |
|  | GW-RS0488-16         | 17 May 2016 | 19 May 2016 to 18 Nov 2016 | Valid  |
|  | GW-RS0492-16         | 20 May 2016 | 23 May 2016 to 22 Nov 2016 | Valid  |
|  | GW-RS0493-16         | 20 May 2016 | 23 May 2016 to 22 Nov 2016 | Valid  |
|  | GW-RS0495-16         | 20 May 2016 | 19 May 2016 to 18 Nov 2016 | Valid  |
| Discharge License                              | WT00009641-2011      | 24 Jul 2011 | 31 Jul 2016                | Valid  |
|  | WT00021138-2015      | 17 Mar 2014 | 31 Mar 2020                | Valid  |
| Billing account under Waste Disposal Ordinance | 7010069              | 21 Jan 2010 | N/A                        | Valid  |
| Registration as a Chemical Waste Producer      | WPN5213-134-C3585-01 | 21 Jan 2010 | N/A                        | Valid  |

**Table 3.3 Summary of submission status under FEP-02/364/2009**

| EP Condition        | Submission                                  | Date of Submission |
|---------------------|---|--------------------|
| Condition 2.7 & 2.8 | Works Schedule and Location Plan            | 18 May 2011        |
| Condition 2.6       | Environmental Management Organization Chart | 18 May 2011        |
| Condition 1.12      | Commencement Date of Works                  | 20 Jun 2011        |
| Condition 2.9       | Noise Management Plan                       | 10 Jun 2011        |
| Condition 2.11      | Landscape Plan (Rev.4)                      | 8 July 2015        |

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

3.1.7. Summary of the current status on licences and/or permits on environmental protection pertinent and submission under FEP-01/364/2009 for contract no. HK/2009/02 are shown in **Table 3.4** and **Table 3.5**.

**Table 3.4 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/02**

| Permits and/or Licences                                   | Reference No.   | Issued Date   | Valid Period/<br>Expiry Date | Status    |
|---|-----------------|---------------|------------------------------|-----------|
| Further Environmental Permit                              | FEP-03/356/2009 | 24 Mar 2010   | N/A                          | Valid     |
|   | FEP-01/364/2009 | 24 Mar 2010   | N/A                          | Valid     |
| Notification of Works Under APCO                          | 313962          | 2 Feb 2010    | N/A                          | Valid     |
| Construction Noise Permit (CNP) for non-pilling equipment | GW-RS1150-15    | 26 Oct 2015   | 28 Oct 2015 to 27 Apr 2016   | Expired   |
|   | GW-RS1187-15    | 28 Oct 2015   | 30 Oct 2015 to 27 Apr 2016   | Expired   |
|   | GW-RS1413-15    | 24 Dec 2015   | 02 Jan 2016 to 01 Jul 2016   | Cancelled |
|   | GW-RS0083-16    | 01 Feb 2016   | 3 Feb 2016 to 01 Aug 2016    | Cancelled |
|   | GW-RS0311-16    | 24 Mar 2016   | 25 Apr 2016 to 24 May 2016   | Expired   |
|   | GW-RS0310-16    | 24 Mar 2016   | 27 Apr 2016 to 30 Apr 2016   | Expired   |
|   | GW-RS0321-16    | 01 Apr 2016   | 5 Apr 2016 to 05 Jul 2016    | Valid     |
|   | GW-RS0390-16    | 22 Apr 2016   | 27 Apr 2016 to 26 Oct 2016   | Valid     |
|   | GW-RS0399-16    | 27 Apr 2016   | 27 Apr 2016 to 26 Oct 2016   | Valid     |
|   | GW-RS0403-16    | 27 Apr 2016   | 30 Apr 2016 to 24 Sep 2016   | Valid     |
|   | GW-RS0516-16    | 20 May 2016   | 23 May 2016 to 22 Nov 2016   | Valid     |
| Water Discharge License                                   | WT00008982-2011 | 26 April 2011 | 30 April 2016                | Expired   |
|   | WT00009691-2011 | 01 Aug 2011   | 31 July 2016                 | Valid     |
|   | WT00022295-2015 | 12 Aug 2015   | 31 July 2020                 | Valid     |



| Permits and/or Licences                               | Reference No.        | Issued Date | Valid Period/<br>Expiry Date  | Status |
|---|----------------------|-------------|-------------------------------|--------|
| Billing Account under Waste Disposal Ordinance (Land) | 7010255              | 10 Feb 2010 | N/A                           | Valid  |
| Registration as Chemical Waste Producer (Wan Chai)    | WPN5213-135-C3593-01 | 10 Mar 2010 | N/A                           | Valid  |
| Registration as Chemical Waste Producer (TKO 137)     | WPN5213-839-C3593-02 | 22 Sep 2010 | N/A                           | Valid  |
| Dumping Permit (Type 1 – Open Sea Disposal)           | EP/MD/16-146         | 24 Dec 2015 | 01 Jan 2016 to<br>30 Jun 2016 | Valid  |

**Table 3.5 Summary of submission status under FEP-01/364/2009**

| EP Condition          | Submission                                  | Date of Submission |
|-----------------------|---|--------------------|
| Condition 2.7 and 2.8 | Works Schedule and Location Plan            | 14 Jun 2011        |
| Condition 2.6         | Environmental Management Organization Chart | 14 Jun 2011        |
| Condition 1.12        | Commencement Date of Works                  | 21 Jun 2011        |
| Condition 2.11        | Landscape Plan (Revision B)                 | 20 Nov 2012        |
| Condition 2.9         | Noise Management Plan (Revision B)          | 13 Jan 2012        |

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

3.1.8. Summary of the current status on licences and/or permits on environmental protection pertinent and submission under FEP-05/364/2009A for contract no. HY/2009/18 are shown in **Table 3.6** and **Table 3.7**.

**Table 3.6 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/18**

| Permit / Licence / Notification / Approval               | Reference No.          | Issued Date | Valid Period/ Expiry Date  | Status                 |
|--|------------------------|-------------|----------------------------|------------------------|
| Further Environmental Permit                             | FEP-05/364/2009/A      | 15 Nov 2010 | Permit issued              | Valid                  |
| Notification of Works Under APCO                         | 322293                 | 07 Oct 2010 | Notified                   | Valid                  |
| Construction Noise Permit (CNP) for non-piling equipment | GW-RS1415-15           | 24 Dec 2015 | 01 Jan 2016 to 30 Jun 2016 | Valid                  |
|  | GW-RS0335-16           | 7 Apr 2016  | 08 Apr 2016 to 30 Sep 2016 | Valid                  |
|  | GW-RS0438-16           | 3 May 2016  | 05 May 2016 to 30 Sep 2016 | Valid                  |
|  | GW-RS0459-16           | 9 May 2016  | 11 May 2016 to 31 Aug 2016 | Valid                  |
| Discharge Licenses                                       | WT00013967-2012        | 17 Sep 2012 | 30 Sep 2017                | Cancelled              |
|  | WT00014966-2013        | 08 Jan 2013 | 31 Jan 2018                | Cancelled              |
|  | WT00020725-2015        | 14 Jan 2015 | 30 Jul 2017                | Valid                  |
|  | WT00024255-2016        | 18 May 2016 | 31 Jan 2021                | Valid                  |
| Registration as a Chemical Waste Producer                | WPN: 8335-121-L1048-04 | 17 Dec 2010 | N/A                        | Registration completed |
| Billing Account under Waste Disposal Ordinance (Land)    | Account No.: 7011587   | 11 Oct 2010 | Account approved           | Valid                  |

**Table 3.7 Summary of submission status under FEP-05/364/2009/A**

| EP Condition   | Submission              | Date of Submission |
|----------------|-------------------------|--------------------|
| Condition 2.9  | Noise Management Plan   | 01 March 2011      |
| Condition 2.10 | Landscape Plan (Rev. 6) | 19 May 2014        |

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

3.1.9. Summary of the current status on licences and/or permits on environmental protection pertinent and submission under FEP-06/364/2009/A for contract no. HY/2009/15 are shown in **Table 3.8** and **Table 3.9**.

**Table 3.8 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/15**

| Permits and/or Licences   | Reference No.          | Issued Date | Valid Period/ Expiry Date  | Status  |
|---|------------------------|-------------|----------------------------|---------|
| Further Environmental Permit  | FEP-06/364/2009/A      | 22 Nov 2010 | N/A                        | Valid   |
|   | FEP-04/356/2009        | 22 Nov 2010 | N/A                        | Valid   |
| Notification of Works Under APCO                                    | 321822                 | 24 Sep 2010 | N/A                        | Valid   |
| Construction Noise Permit (CNP) for non-piling equipment            | GW-RS1303-15           | 26 Nov 2015 | 26 Nov 2015 to 25 May 2016 | Expired |
|   | GW-RS0232-16           | 08 Mar 2016 | 9 Mar 2016 to 08 Sep 2016  | Valid   |
|   | GW-RS0233-16           | 14 Mar 2016 | 14 Mar 2016 to 10 Sep 2016 | Valid   |
|   | GW-RS0235-16           | 10 Mar 2016 | 12 Mar 2016 to 08 Sep 2016 | Valid   |
| Registration as a Chemical Waste Producer                           | WPN: 5213-147-C1169-35 | 15 Nov 2010 | N/A                        | Valid   |
| Billing Account under Waste Disposal Ordinance                      | 7011553                | 30 Sep 2010 | 27 Sep 2010 to 27 Jun 2016 | Valid   |
| Billing Account under Waste Disposal Ordinance (Disposal by Vessel) | 7011761                | 26 Jun 2015 | 17 Apr 2016 to 16 Jul 2016 | Valid   |
| Water Discharge License (Discharge at CHT area)                     | WT00019250-2014        | 6 Jun 2014  | 06 Jun 2014 to 31 May 2016 | Valid   |
| Water Discharge Licence (Discharge at TPCWAW)                       | WT00020601-2014        | 18 Mar 2015 | 18 Mar 2015 to 31 Mar 2017 | Valid   |



**Table 3.9 Summary of submission status under FEP-06/364/2009/A**

| <b>EP Condition</b> | <b>Submission</b>  | <b>Date of Submission</b> |
|---------------------|--|---------------------------|
| Condition 2.6       | Management Organization of Main Construction Companies               | 11 Mar 2011               |
|                     | Amendment for Management Organization of Main Construction Companies | 16 May 2011               |
| Condition 2.7       | Works Schedule   | 15 Mar 2011               |
| Condition 2.8       | Location Plan  | 15 Mar 2011               |
| Condition 2.9       | Noise Management Plan  | 6 May 2011                |
| Condition 2.10      | Landscape Plan (Rev.3)   | 30 Jan 2015               |



Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

3.1.10. The current status on licences and/or permits on environmental protection pertinent and submission under FEP-07/364/2009/D for contract no. HY/2009/19 are shown in **Table 3.10** and **Table 3.11**.

**Table 3.10 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/19**

| Permits and/or Licences                                     | Reference No.     | Issued Date  | Valid Period/<br>Expiry Date | Status     |
|---|-------------------|--------------|------------------------------|------------|
| Further Environmental Permit                                | FEP-07/364/2009/A | 25 Feb 2011  | N/A                          | Superseded |
|   | FEP-07/364/2009/D | 24 Nov 2015  | N/A                          | Valid      |
| Notification of Works Under APCO                            | 326160            | 24 Jan 2011  | N/A                          | Valid      |
| Registration as a Waste Producer                            | 7012306           | 10 Feb 2011  | N/A                          | Valid      |
| Registration as Chemical Waste Producer                     | 5213-151-C3654-01 | 24 Mar 2011  | N/A                          | Valid      |
| Application for Vessel Disposal                             | 7012306           | 21 July 2011 | N/A                          | Valid      |
| Construction Noise Permits (CNP) for non-piling equipment   | GW-RS1324-15      | 01 Dec 2015  | 08 Dec 2015 to 07 Jun 2016   | Valid      |
|   | GW-RS1398-15      | 17 Jun 2015  | 18 Dec 2015 to 17 Jun 2016   | Valid      |
|   | GW-RS0197-16      | 02 Mar 2016  | 02 Mar 2016 to 01 Sep 2016   | Cancelled  |
|   | GW-RS0330-16      | 05 Apr 2016  | 05 Apr 2016 to 04 Oct 2016   | Valid      |
|   | GW-RS0506-16      | 20 May 2016  | 23 May 2016 to 18 Nov 2016   | Valid      |
| Water Discharge License                                     | WT00010093-2011   | 17 Aug 2012  | 30 Sep 2016                  | Valid      |
|   | WT00010865-2011   | 03 Nov 2011  | 30 Nov 2016                  | Cancelled  |
| Dumping Permit (Approach Ramp) (Type 1 – Open Sea Disposal) | EP/MD/16-092      | 20 Nov 2015  | 15 May 2016                  | Cancelled  |

**Table 3.11 Summary of submission status under FEP-07/364/2009/D**

| EP Condition   | Submission                    | Date of Submission |
|----------------|-------------------------------|--------------------|
| Condition 2.13 | Landscape Plan (Rev.4)        | 22 March 2016      |
| Condition 2.9  | Noise Management Plan (Rev.4) | 15 February 2016   |

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

3.1.11. The current status on licences and/or permits on environmental protection pertinent and submission under FEP-09/364/2009/B for contract no. HK/2012/08 showed in **Table 3.12 and Table 3.13**.

**Table 3.12 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2012/08**

| Permits and/or Licences                                  | Reference No.     | Issued Date  | Valid Period/<br>Expiry Date | Status    |
|--|-------------------|--------------|------------------------------|-----------|
| Further Environmental Permit                             | FEP-09/364/2009/B | 5 March 2013 | N/A                          | Valid     |
|  | FEP-06/356/2009   | 5 March 2013 | N/A                          | Valid     |
| Notification of Works Under APCO                         | 355439            | 4 Feb 2013   | N/A                          | Valid     |
| Registration as a Chemical Waste Producer                | 5213-134-C3790-01 | 8 Mar 2013   | N/A                          | Valid     |
| Billing Account under Waste Disposal Ordinance           | 7016883           | 18 Feb 2013  | 18 Jul 2017                  | Valid     |
| Construction Noise Permit (CNP) for non-piling equipment | GW-RS0079-16      | 1 Feb 2016   | 3 Feb 2016 to 02 Aug 2016    | Valid     |
|  | GW-RS0212-16      | 8 Mar 2016   | 10 Mar 2016 to 08 Sep 2016   | Cancelled |
|  | GW-RS0386-16      | 20 Apr 2016  | 22 Apr 2016 to 19 Oct 2016   | Valid     |
| Water Discharge Licence                                  | WT00018223-2014   | 28 Jan 2014  | 31 Jan 2019                  | Cancelled |
|  | WT00020594-2014   | 22 Dec 2014  | 31 Jan 2019                  | Valid     |

**Table 3.13 Summary of submission status under FEP-09/364/2009/B**

| EP Condition   | Submission                    | Date of Submission |
|----------------|-------------------------------|--------------------|
| Condition 2.9  | Noise Management Plan (Rev.2) | 9 July 2013        |
| Condition 2.14 | Landscape Plan (Rev.4)        | 24 August 2015     |

Contract no. HY/2010/08 –Central – Wanchai Bypass Tunnel – Tunnel (Slip Road 8)

3.1.12. The current status on licences and/or permits on environmental protection pertinent and submission under FEP-10/364/2009/B for contract no. HK/2012/08 showed in **Table 3.14 and Table 3.15**.

**Table 3.14 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2010/08**

| Permits and/or Licences                                  | Reference No.        | Issued Date | Valid Period/<br>Expiry Date | Status    |
|--|----------------------|-------------|------------------------------|-----------|
| Further Environmental Permit                             | FEP-10/364/2009/B    | 26 Jul 2013 | NA                           | Valid     |
|  | FEP-07/356/2009      | 26 Jul 2013 | NA                           | Valid     |
| Notification of Works Under APCO                         | 357176               | 2013-04-02  | NIL                          | Valid     |
| Registration as a Chemical Waste Producer                | WPN5213-147-C1169-44 | 2013-03-27  | NIL                          | Valid     |
| Billing Account under Waste Disposal Ordinance           | 7017170              | 2013-03-27  | NIL                          | Valid     |
| Water Discharge License                                  | WT0001651-2013       | 2013-07-09  | 2018-07-28                   | Cancelled |
|  | WT00020468-2014      | 2014-12-03  | 2018-07-31                   | Valid     |
| Construction Noise Permit (CNP) for non-piling equipment | GW-RS0001-16         | 06 Jan 2016 | 06 Jan 2016 to 05 Jun 2016   | Valid     |
|  | GW-RW0061-16         | 02 Feb 2016 | 02 Feb 2016 to 31 Jul 2016   | Cancelled |
|  | GW-RS0264-16         | 18 Mar 2016 | 18 Mar 2016 to 17 Sep 2016   | Valid     |
|  | GW-RS0357-16         | 22 Apr 2016 | 22 Apr 2016 to 21 Oct 2016   | Valid     |
|  | GW-RS0362-16         | 22 Apr 2016 | 22 Apr 2016 to 21 Oct 2016   | Valid     |
|  | GW-RS0407-16         | 20 Apr 2016 | 20 Apr 2016 to 19 Oct 2016   | Valid     |
|  | GW-RS0434-16         | 05 May 2016 | 24 May 2016 to 23 Nov 2016   | Valid     |

| Permits and/or Licences | Reference No. | Issued Date | Valid Period/<br>Expiry Date  | Status  |
|-------------------------|---------------|-------------|-------------------------------|---------|
|                         | GW-RS0442-16  | 06 May 2016 | 16 May 2016 to<br>15 Nov 2016 | Valid   |
|                         | GW-RS1262-15  | 17 Nov 2015 | 18 Nov 2015 to<br>16 May 2016 | Expired |
|                         | GW-RS1282-15  | 25 Nov 2015 | 25 Nov 2015 to<br>24 May 2016 | Expired |

**Table 3.15 Summary of submission status under FEP-10/364/2009/B**

| EP Condition   | Submission                         | Date of Submission |
|----------------|------------------------------------|--------------------|
| Condition 2.9  | Noise Management Plan (Rev.3)      | 03 January 2014    |
| Condition 2.14 | Landscape Plan (Rev.2)             | 19 May 2014        |
| Condition 2.16 | Additional Mitigation Plan (Rev.2) | 18 February 2015   |

Contract no. HY/2011/08 –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009/B

3.1.13. The current status on licenses and/or permits on environmental protection pertinent and submission under FEP-11/364/2009/B for contract no. HY/2011/08 showed in **Table 3.16 and Table 3.17**.

**Table 3.16 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2011/08**

| Permits and/or Licences                        | Reference No.     | Issued Date | Valid Period/<br>Expiry Date  | Status     |
|--|-------------------|-------------|-------------------------------|------------|
| Further Environmental Permit                   | FEP-11/364/2009/B | 2 May 2014  | N/A                           | Valid      |
| Notification of Works Under APCO               | LCAC-EN-LE-00017  | 7 Mar 2014  | N/A                           | Valid      |
| Registration as a Chemical Waste Producer      | 5213-121-L2837-01 | 19 Apr 2016 | N/A                           | Valid      |
|  | 5213-151-L2837-02 | 09 Oct 2015 | N/A                           | Registered |
|  | 5213-134-L2898-01 | 16 Nov 2015 | N/A                           | Registered |
| Billing Account under Waste Disposal Ordinance | 7019640           | 27 Mar 2014 | N/A                           | Valid      |
|  | GW-RS1235-15      | 12 Nov 2015 | 18 Nov 2015 to<br>30 Apr 2016 | Expired    |
|  | GW-RS1369-15      | 14 Dec 2015 | 15 Dec 2015 to<br>31 May 2016 | Valid      |

| Permits and/or Licences                                  | Reference No.   | Issued Date | Valid Period/<br>Expiry Date | Status |
|--|-----------------|-------------|------------------------------|--------|
| Construction Noise Permit (CNP) for non-piling equipment | GW-RS1423-15    | 24 Dec 2015 | 26 Dec 2015 to 31 May 2016   | Valid  |
|  | GW-RS1426-15    | 29 Dec 2015 | 01 Jan 2016 to 30 Jun 2016   | Valid  |
|  | GW-RS1433-15    | 29 Dec 2015 | 01 Jan 2016 to 30 Jun 2016   | Valid  |
|  | GW-RS0147-16    | 17 Feb 2016 | 19 Feb 2016 to 31 Jul 2016   | Valid  |
|  | GW-RS0159-16    | 17 Feb 2016 | 18 Feb 2016 to 31 Jul 2016   | Valid  |
|  | GW-RS0222-16    | 8 Mar 2016  | 9 Mar 2016 to 31 Aug 2016    | Valid  |
|  | GW-RS0284-16    | 23 Mar 2016 | 24 Mar 2016 to 31 Aug 2016   | Valid  |
|  | GW-RS0419-16    | 29 Apr 2016 | 1 May 2016 to 31 Oct 2016    | Valid  |
| Water Discharge Licence                                  | WT00020242-2014 | 04 Nov 2014 | 30 Nov 2019                  | Valid  |
|  | WT00020246-2015 | 15 Jul 2015 | 31 Jul 2019                  | Valid  |
|  | WT00022753-2015 | 3 May 2016  | 30 Apr 2021                  | Valid  |

**Table 3.17 Summary of submission status under FEP-11/364/2009/B**

| EP Condition   | Submission  | Date of Submission |
|----------------|---|--------------------|
| Condition 2.9  | Noise Management Plan (Rev.2)   | 27 Jan 2015        |
| Condition 2.14 | Landscape Plan (Rev.2)  | 18 Feb 2015        |
| Condition 2.13 | Operational Air Quality Management Plan for West Ventilation Building (Rev.0)                     | 25 Nov 2014        |
| Condition 2.13 | Operational Air Quality Management Plan for East Ventilation Building and East Vent Shaft (Rev.0) | 18 Feb 2015        |

## 4 MONITORING REQUIREMENTS

### 4.1 Noise Monitoring

#### NOISE MONITORING STATIONS

4.1.1. The noise monitoring stations for the Project are listed and shown in **Table 4.1** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

**Table 4.1 Noise Monitoring Stations**

| Station | Description  |
|---------|--|
| M1a     | Harbour Road Sports Centre                           |
| M2b     | Noon-day Gun Area                                    |
| M3a     | Tung Lo Wan Fire Station                             |
| M4b     | Victoria Centre                                      |
| M5b     | City Garden  |
| M6      | HK Baptist Church Henrietta Secondary School         |
| *M7e    | International Finance Centre (Eastern End of Podium) |
| M7w     | International Finance Centre (Western End of Podium) |
| *M8     | City Hall  |

\* Remark 1: Location ID has been updated from M7 to M8 for City Hall

\* Remark 2: M7e has become a reference station starting from 7 Aug 2012

#### REAL TIME NOISE MONITORING STATIONS

4.1.2. The noise monitoring stations for the Project are listed and shown in **Table 4.2** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

**Table 4.2 Real Time Noise Monitoring Stations**

| District    | Station | Description                                      |
|-------------|---------|--|
| Tin Hau     | RTN1    | FEHD Hong Kong Transport Section Whitfield Depot |
| North Point | RTN2a   | Hong Kong Electric Centre                        |
| North Point | RTN3    | Po Leung Kuk Yu Lee Mo Fan Memorial School       |
| Tin Hau     | RTN4    | Causeway Bay Community Centre                    |

### NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.1.3. The construction noise level shall be measured in terms of the A-weighted equivalent continuous sound pressure level ( $L_{eq}$ ).  $L_{eq(30 \text{ minutes})}$  shall be used as the monitoring parameter for the time period between 0700 and 1900 hours on normal weekdays. For all other time periods,  $L_{eq(5 \text{ minutes})}$  shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. Supplementary information for data auditing, statistical results such as  $L_{10}$  and  $L_{90}$  shall also be obtained for reference.
- 4.1.4. Noise monitoring shall be carried out at all the designated monitoring stations. The monitoring frequency shall depend on the scale of the construction activities. The following is an initial guide on the regular monitoring frequency for each station on a weekly basis when noise generating activities are underway:
- One set of measurements between 0700 and 1900 hours on normal weekdays.
- 4.1.5. Real time noise shall be carried out at the designated monitoring stations. The following is an initial guide on the regular monitoring frequency for each station on a 24 - hours basis when noise generating activities are underway:
- One set of measurements between 0700 and 1900 hours on normal weekdays.
  - One set of measurements between 1900 and 2300 hours on normal weekdays and 0700 and 2300 hours on public holidays.
  - One set of measurements between 2300 and 0700 hours on next day on everyday.
- 4.1.6. If construction works are extended to include works during the hours of 1900 – 0700 as well as public holidays and Sundays, additional weekly impact monitoring shall be carried out during respective restricted hours periods. Applicable permits under NCO shall be obtained by the Contractor.

### MONITORING EQUIPMENT

- 4.1.7. As referred to in the Technical Memorandum <sup>TM</sup> issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.
- 4.1.8. Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.
- 4.1.9. The sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency before deployment to the site and during each site visit. Measurements will be accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.

**4.2 Air Quality Monitoring**

AIR QUALITY MONITORING STATIONS

4.2.1. The air quality monitoring stations for the Project are listed and shown in **Table 4.3 and Figure 4.1. Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

**Table 4.3 Air Quality Monitoring Stations**

| Station ID | Monitoring Location                                  | Description                                    |
|------------|--|--|
| CMA1b      | Oil Street Site Office**                             | North Point (Re-commenced on 14 November 2011) |
| CMA2a      | Causeway Bay Community Centre                        | Causeway Bay                                   |
| CMA3a      | CWB PRE Site Office *                                | Causeway Bay                                   |
| CMA4a      | Society for the Prevention of Cruelty to Animals     | Wan Chai                                       |
| CMA5b      | Pedestrian Plaza***                                  | Wan Chai                                       |
| MA1e       | International Finance Centre (Eastern End of Podium) | Central  |
| MA1w       | International Finance Centre (Western End of Podium) | Central  |

Remarks\*: As per the ENPC meeting in March 2011, the monitoring stations CMA3a – Future CWB site office at Wanchai Waterfront Promenade was renamed as remark.

Remarks\*\*: The location ID of monitoring station CMA1b was updated as “Oil Street Site Office” in April 2013.

Remarks\*\*\*: The station ID and monitoring location was updated in December 2014 with respect to monitoring station relocation.

AIR QUALITY MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.2.2. One-hour and 24-hour TSP levels should be measured to indicate the impacts of construction dust on air quality. The 24-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50), Appendix B.
- 4.2.3. All relevant data including temperature, pressure, weather conditions, elapsed-time meter reading for the start and stop of the sampler, identification and weight of the filter paper, and any other local atmospheric factors affecting or affected by site conditions, etc., shall be recorded down in detail.
- 4.2.4. For regular impact monitoring, the sampling frequency of at least once in every six days, shall be strictly observed at all the monitoring stations for 24-hour TSP monitoring. For 1-hour TSP monitoring, the sampling frequency of at least three times in every six days should be undertaken when the highest dust impact occurs.



## SAMPLING PROCEDURE AND MONITORING EQUIPMENT

4.2.5. High volume samplers (HVSs) in compliance with the following specifications shall be used for carrying out the 1-hour and 24-hour TSP monitoring:

- 0.6 – 1.7 m<sup>3</sup> per minute adjustable flow range;
- Equipped with a timing / control device with +/- 5 minutes accuracy for 24 hours operation;
- Installed with elapsed-time meter with +/- 2 minutes accuracy for 24 hours operation;
- Capable of providing a minimum exposed area of 406 cm<sup>2</sup>;
- Flow control accuracy: +/- 2.5% deviation over 24-hour sampling period;
- Equipped with a shelter to protect the filter and sampler;
- Incorporated with an electronic mass flow rate controller or other equivalent devices;
- Equipped with a flow recorder for continuous monitoring;
- Provided with a peaked roof inlet;
- Incorporated with a manometer;
- Able to hold and seal the filter paper to the sampler housing at horizontal position;
- Easily changeable filter; and
- Capable of operating continuously for a 24-hour period.

4.2.6. Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognized primary standard and be calibrated annually. The concern parties such as IEC shall properly document the calibration data for future reference. All the data should be converted into standard temperature and pressure condition.

## LABORATORY MEASUREMENT / ANALYSIS

4.2.7. A clean laboratory with constant temperature and humidity control, and equipped with necessary measuring and conditioning instruments to handle the dust samples collected, shall be available for sample analysis, and equipment calibration and maintenance. The laboratory should be HOKLAS accredited.

4.2.8. Filter paper of size 8" x 10" shall be labelled before sampling. It shall be a clean filter paper with no pinholes, and shall be conditioned in a humidity-controlled chamber for over 24 hours and be pre-weighed before use for the sampling.

4.2.9. After sampling, the filter paper loaded with dust shall be kept in a clean and tightly sealed plastic bag. The filter paper shall then be returned to the laboratory for reconditioning in the humidity controlled chamber followed by accurate weighing by an electronic balance with readout down to 0.1 mg. The balance shall be regularly calibrated against a traceable standard.

4.2.10. All the collected samples shall be kept in a good condition for 6 months before disposal.

4.2.11. Current calibration certificates of equipments are presented in **Appendix 4.2**.

## 5.0 MONITORING RESULTS

5.0.1. The environmental monitoring will be implemented based on the division of works areas of each designated project managed under different contracts with separate FEP applied by individual contractors. Overall layout showing work areas of various contracts, latest status of work commencement and monitoring stations is shown in **Figure 2.1** and **Figure 4.1**. The monitoring results are presented in according to the Individual Contract(s).

5.0.2. In the reporting month, the concurrent contracts are as follows:

- Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)
- Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange
- Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link
- Contract no. HY/2010/08 – Central- Wanchai Bypass Tunnel (Slip Road 8 Section)
- Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre
- Contract no. HK/2009/02 - Wan Chai Development Phase II – Central - Wan Chai Bypass at Wan Chai East
- Contract no. HK/2012/08 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai West
- Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB)– Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning

5.0.3. The environment monitoring schedules for reporting month and coming month are presented in **Appendix 5.1**.

**5.1 Noise Monitoring Results**

5.1.1 Monitoring for report of review baseline noise level was performed from 11 April 2011 to 8 June 2011. Then the report was submitted on the 20 June 2011, verified by IEC on 18 July 2011 and was approved by ER by January 2012. The new baseline is used for the noise calculation starting from January 2012.

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

5.1.2 Noise monitoring for the Central Interchange works under contract no. HY/2009/18 was commenced on 22 April 2011. The proposed division of noise monitoring stations for Contract no. HY/2009/18 are summarized in **Table 5.1** below:

**Table 5.1 Noise Monitoring Stations for Contract no. HY/2009/18**

| Station | Description  |
|---------|--|
| *M7e    | International Finance Centre (Eastern End of Podium) |
| M7w     | International Finance Centre (Western End of Podium) |
| M8      | City Hall  |

\* Remark: M7e has become a reference station starting from 7 Aug 2012

5.1.3 No action or limit level exceedance was recorded in this reporting month.

5.1.4 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009 and Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

5.1.5 The commencement of construction works for Contract no. HK/2009/01 under FEP-02/364/2009 is on 25 August 2011 and HK/2009/02 under FEP-01/364/2009 is on 26 April 2011. The proposed division of noise monitoring stations are summarized in **Table 5.2** below.

**Table 5.2 Noise Monitoring Station for Contract no HK/2009/01 and HK/2009/02**

| Station | Description                |
|---------|----------------------------|
| M1a     | Harbour Road Sports Centre |

5.1.6 Two limit level exceedances were recorded at M1a- Harbour Road Sports Centre on 04 and 24 May 2016 in this reporting month.

5.1.7 Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 04 May 2016 while operation of Hydromil Trench Cutter at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor as major noise contribution during monitoring on 24 May 2016. As such, the exceedances were considered as non-Project related.

5.1.8 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

5.1.9 The commencement of construction works for Contract no. HY/2009/15 under FEP-06/364/2009/A was on 13 July 2011. Noise monitoring was commenced on 13 July 2011. The proposed divisions of noise monitoring stations are summarized in **Table 5.3** below.

**Table 5.3 Noise Monitoring Stations for Contract no. HY/2009/15**

| Station | Description              |
|---------|--------------------------|
| M2b     | Noon Gun Area            |
| M3a     | Tung Lo Wan Fire Station |

5.1.10 No action or limit level exceedance was recorded in this reporting month.

5.1.11 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

5.1.12 Noise monitoring for the tunnel works under contract no. HY/2009/19 was commenced on 24 April 2011. The proposed division of noise monitoring stations are summarized in **Table 5.4** below.

**Table 5.4 Noise Monitoring Stations for Contract no. HY/2009/19**

| Station | Description                                  |
|---------|--|
| M4b     | Victoria Centre                              |
| M5b     | City Garden                                  |
| M6      | HK Baptist Church Henrietta Secondary School |

5.1.13 No action or limit level exceedance was recorded in this reporting month.

5.1.14 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**. Details of the Notification of Exceedance can be referred in **Appendix 6.2**.

Contract no. HY/2010/08 – Central-Wanchai Bypass –Wanchai Bypass Tunnel (Slip Raod 8 Section) under FEP-09/364/2009/B

5.1.15 The commencement of construction works for Contract no. HY/2010/08 under FEP-10/364/2009/B was on 02 September 2013. Noise monitoring was commenced on 02 September 2013. The proposed divisions of noise monitoring stations are summarized in **Table 5.5** below.

**Table 5.5 Noise Monitoring Stations for Contract no. HY/2010/08**

| Station | Description              |
|---------|--------------------------|
| M3a     | Tung Lo Wan Fire Station |

5.1.16 No action or limit level exceedance was recorded in this reporting month.

5.1.17 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning

5.1.18 Noise monitoring for the Central Interchange works under contract no. HY/2009/18 was commenced on 22 April 2011. The proposed division of noise monitoring stations for Contract no. HY/2011/08 are summarized in **Table 5.6** below:

**Table 5.6 Noise Monitoring Stations for Contract no. HY/2011/08**

| Station | Description  |
|---------|--|
| M4b     | Victoria Centre                                      |
| *M7e    | International Finance Centre (Eastern End of Podium) |
| M7w     | International Finance Centre (Western End of Podium) |
| M8      | City Hall  |

\* Remark: M7e has become a reference station starting from 7 Aug 2012

5.1.19 No action or limit level exceedance was recorded in this reporting month.

5.1.20 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

**5.2 Real Time Noise Monitoring Results**

- 5.2.1. Real time noise monitoring at RTN4-Causeway Bay Community Centre was commenced on 13 Jan 2013. The baseline noise level of RTN4- Causeway Bay Community Centre has adopted the results from the baseline noise monitoring report for EP/364/2009 in 22 April 2010 in which approved by EPD.
- 5.2.2. Po Leung Kuk Yu Lee Mo Fan Memorial School granted permission for set up on 4 Sep 2012 and real time noise monitoring station RTN3 set up was performed on 14 Sep 2012. Real time noise baseline capturing was conducted during time period without construction work from 21 Sep 2012 to 04 Oct 2012. Real time noise monitoring at RTN3 – Po Leung Kuk Yu Lee Mo Fan Memorial School was commenced since 06 Oct 2012.
- 5.2.3. Real-time noise monitoring station RTN2 previously located at oil Street Community Liaison Centre was relocated to Hong Kong Electric Centre on 5 Oct 2012, which is a representative of the noise sensitive receiver City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted at Hong Kong Electric Centre from 4 December 2009 to 17 December 2009.
- 5.2.4. Real-time noise monitoring station RTN1-FEHD Whitfield Depot was finely adjusted from 2/F to roof-top at FEHD Whitfield Depot on 24 June 2013 with respect to the commencement of advance works for IEC parapet demolition.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- 5.2.5. The proposed division of noise monitoring stations are summarized in **Table 5.7** below. Real time noise monitoring for major construction works under contract no. HY/2009/19 was commenced on 24 April 2011.

**Table 5.7 Real Time Noise Monitoring Stations for Contract no. HY/2009/19**

| Location ID | District    | Description                                      |
|-------------|-------------|--|
| RTN1        | Tin Hau     | FEHD Hong Kong Transport Section Whitfield Depot |
| RTN2a       | North Point | Hong Kong Electric Centre                        |
| RTN3        | North Point | Po Leung Kuk Yu Lee Mo Fan Memorial School       |
| RTN4        | Tin Hau     | Causeway Bay Community Centre                    |

*\* Real time noise monitoring results and graphical presentation during restrict hours and night time period are for information only and noise during CNP period shall be controlled under NCO.*

- 5.2.6. No limit level exceedance was recorded at RTN1-FEHD Hong Kong Transport Section Whitfield Depot in the reporting month.
- 5.2.7. No limit level exceedances were recorded at RTN2a-Electric Centre in the reporting month.
- 5.2.8. Limit level exceedances were recorded at RTN3-Yue Lee Mo Fan Memorial School on 27 April 2016, 3 and 10 May2016 in the reporting month. On 27 April 2016 during the monitoring

period, no construction works was undertaken under Contract HY/2009/19 and cast-in-item installation and erection of formwork was conducted under Contract HY/2009/19 on 03 and 10 May 2016 respectively. Based on relevant data from Hong Kong observatory, adverse weather condition with significant rainfall was recorded on 27 April 2016 amber rainstorm warning signal and red rainstorm warning signal was hoisted on 03 and 10 May 2016 respectively and considered as the major noise contribution. As such, the exceedances were considered as non-project related.

- 5.2.9. Limit level exceedances were recorded at RTN4-Causeway Bay Community Centre on 04 May 2016 in the reporting month. On 04 May 2016, segment installation was conducted under HY/2009/19 while external panel installation works was observed undertaken by non-CWB Contractor at Causeway Bay Community Centre near the monitoring station and considered as the major noise contribution. As such, the exceedance was considered as non- Project related.
- 5.2.10. Real time noise monitoring results measured in this reporting period are reviewed and summarized. Details of real time noise monitoring results and graphical presentation can be referred to **Appendix 5.4.**

Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning

- 5.2.11. The proposed division of noise monitoring stations are summarized in **Table 5.8** below. Real time noise monitoring for major construction works under contract no. HY/2011/08 was commenced on 19 March 2015.

**Table 5.8 Real Time Noise Monitoring Stations for Contract no. HY/2011/08**

| Location ID        | District    | Description                                      |
|--------------------|-------------|--|
| RTN1               | Tin Hau     | FEHD Hong Kong Transport Section Whitfield Depot |
| RTN2a <sup>1</sup> | North Point | Hong Kong Electric Centre                        |

\* Real time noise monitoring results and graphical presentation during restrict hours and night time period are for information only and noise during CNP period shall be controlled under NCO.

Remarks <sup>1</sup>: With respect to the possession of site area Portion Xa and Portion Xb since 7 March 2016 as confirmed by CWB RSS, real time noise monitoring station RTN2a was associated with Contract no. HY/2011/08 from 07 March 2016 onwards.

- 5.2.12. No limit level exceedance was recorded at RTN1-FEHD Hong Kong Transport Section Whitfield Depot in the reporting month.
- 5.2.13. No limit level exceedances were recorded at RTN2a-Electric Centre in the reporting month.

**5.3 Air Quality Monitoring Results**

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

5.3.1 Air quality monitoring for the Central Interchange works under contract no. HY/2009/18 was commenced on 21 April 2011. The proposed division of air quality monitoring stations are summarized in **Table 5.9** below.

**Table 5.9 Air Quality Monitoring Stations for Contract no. HY/2009/18**

| Station | Description  |
|---------|--|
| MA1e    | International Finance Centre (Eastern End of Podium) |
| MA1w    | International Finance Centre (Western End of Podium) |

5.3.2 No exceedance was recorded in the reporting month.

5.3.3 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

5.3.4 The commencement of construction works for Contract no. HK/2009/01 under FEP-02/364/2009 is on 25 August 2011. Air quality monitoring was commenced on 25 August 2011. The proposed division of air quality monitoring stations are summarized in **Table 5.10** below.

**Table 5.10 Air Quality Monitoring Station for Contract no. HK/2009/01**

| Station | Description      |
|---------|------------------|
| CMA5b   | Pedestrian Plaza |

5.3.5 No exceedance was recorded in the reporting month.

5.3.6 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

5.3.7 The commencement of construction works for HK/2009/02 under FEP-01/364/2009 is on 26 April 2011. The proposed division of air quality monitoring stations are summarized in **Table 5.11** below.



**Table 5.11 Air Quality Monitoring Station for Contract no. HK/2009/02**

| Station | Description                                      |
|---------|--|
| CMA4a   | Society for the Prevention of Cruelty to Animals |

- 5.3.8 No exceedance was recorded in the reporting month.
- 5.3.9 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- 5.3.10 The commencement of construction works for Contract no. HY/2009/15 under FEP-06/364/2009/A was on 13 July 2011. Air quality monitoring was commenced on 14 July 2011. The proposed division of air quality monitoring stations are summarized in **Table 5.12** below.

**Table 5.12 Air Quality Monitoring Station for Contract no. HY/2009/15**

| Station | Description         |
|---------|---------------------|
| CMA3a   | CWB PRE Site Office |

- 5.3.11 No exceedance was recorded in the reporting month.
- 5.3.12 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- 5.3.13 The proposed division of air quality monitoring stations are summarized in **Table 5.13** below. Air quality monitoring for the tunnel works under contract no. HY/2009/19 was commenced on 26 April 2011.

**Table 5.13 Air Quality Monitoring Stations for Contract no. HY/2009/19**

| Station | Description                   |
|---------|-------------------------------|
| CMA1b   | Oil Street Site Office        |
| CMA2a   | Causeway Bay Community Centre |

- 5.3.14 No exceedance was recorded in the reporting month.
- 5.3.15 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HK/2012/08- Wan Chai Development Phase II – Central-Wan Chai Bypass at Wan Chai West

5.3.16 The commencement of construction works for Contract no. HK/2012/08 under FEP-09/364/2009/C was on May 2014. Air quality monitoring was commenced on 25 August 2011. The proposed division of air quality monitoring stations are summarized in **Table 5.14** below.

**Table 5.14 Air Quality Monitoring Station for Contract no. HK/2012/08**

| Station | Description      |
|---------|------------------|
| CMA5b   | Pedestrian Plaza |

5.3.17 No exceedance was recorded in the reporting month.

5.3.18 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2010/08 – Central-Wanchai Bypass –Wanchai Bypass Tunnel (Slip Raod 8 Section) under FEP-09/364/2009/B

5.3.19 The commencement of construction works for Contract no. HY/2010/08 under FEP-09/364/2009/B was on July 2014. Air quality monitoring was commenced on 14 July 2011. The proposed division of air quality monitoring stations are summarized in **Table 5.15** below.

**Table 5.15 Air Quality Monitoring Station for Contract no. HY/2010/08**

| Station | Description         |
|---------|---------------------|
| CMA3a   | CWB PRE Site Office |

5.3.20 No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning

5.3.21 Air quality monitoring for the Central Interchange works under contract no. HY/2011/08 was commenced on 21 April 2011. The proposed division of air quality monitoring stations are summarized in **Table 5.16** below.

**Table 5.16 Air Quality Monitoring Stations for Contract no. HY/2011/08**

| Station | Description  |
|---------|--|
| MA1e    | International Finance Centre (Eastern End of Podium) |
| MA1w    | International Finance Centre (Western End of Podium) |
| CMA1b   | Oil Street Site Office                               |
| CMA2a   | Causeway Bay Community Centre                        |



- 5.3.22 No exceedance was recorded in the reporting month.
- 5.3.23 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

**5.4 Waste Monitoring Results**

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

5.4.1. Inert C&D wastes and non-inert C&D wastes were disposed in this reporting month. Details of the waste flow table are summarized in **Table 5.17**.

**Table 5.17 Details of Waste Disposal for Contract no. HK/2009/01**

| Waste Type  | Quantity this month | Cumulative-to-Date | Disposal / Dumping Grounds         |
|---|---------------------|--------------------|------------------------------------|
| Inert C&D materials disposed, m <sup>3</sup>  | 1450.81             | 107791.73          | TKO137, TM38                       |
| Inert C&D materials recycled, m <sup>3</sup>  | Nil                 | 98492.03           | N/A                                |
| Non-inert C&D materials disposed, m <sup>3</sup>  | 62.86               | 4590.2             | SENT Landfill                      |
| Non-inert C&D materials recycled, kg  | 66000               | 1209071            | N/A                                |
| Chemical waste disposed, kg   | Nil                 | 10400              | N/A                                |
| Marine Sediment (Type 1 – Open Sea Disposal), m <sup>3</sup>  | Nil                 | 11527              | South of Cheung Chau               |
| Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal), m <sup>3</sup> | Nil                 | 16261              | East of Cha Chau<br>South Brothers |

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

5.4.2. Inert C&D & non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.18**.

**Table 5.18 Details of Waste Disposal for Contract no. HK/2009/02**

| Waste Type   | Quantity this month | Cumulative Quantity-to-Date | Disposal / Dumping Grounds |
|--|---------------------|-----------------------------|----------------------------|
| Inert C&D materials disposed, m <sup>3</sup>                 | 2848                | 483137.412                  | TKO137 / TM 38             |
| Inert C&D materials recycled, m <sup>3</sup>                 | Nil                 | 46520                       | N/A                        |
| Non-inert C&D materials disposed, m <sup>3</sup>             | 215                 | 2792.317                    | SENT Landfill              |
| Non-inert C&D materials recycled, m <sup>3</sup>             | Nil                 | N/A                         | N/A                        |
| Chemical waste disposed, kg                                  | Nil                 | 17718                       | SENT Landfill              |
| Marine Sediment (Type 1 – Open Sea Disposal), m <sup>3</sup> | Nil                 | 27889                       | South Cheung Chau          |

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

5.4.3. Inert C&D and non-inert C&D waste was disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.19**.

**Table 5.19 Details of Waste Disposal for Contract no. HY/2009/18**

| Waste Type                                       | Quantity this month | Cumulative-to-Date | Disposal / Dumping Grounds |
|--|---------------------|--------------------|----------------------------|
| Inert C&D materials disposed, m <sup>3</sup>     | 181.08              | 140233.94          | T.K.O. 137, TM 38          |
| Inert C&D materials recycled, m <sup>3</sup>     | Nil                 | 58787.05           | N/A                        |
| Non-inert C&D materials disposed, m <sup>3</sup> | 71.14               | 4090.69            | SENT Landfill              |
| Non-inert C&D materials recycled, ton            | Nil                 | 878.37             | N/A                        |
| Chemical waste disposed, kg                      | Nil                 | 4440               | N/A                        |

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

5.4.4. Inert & Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.20**.

**Table 5.20 Details of Waste Disposal for Contract no. HY/2009/15**

| Waste Type   | Quantity this month | Cumulative Quantity-to-Date | Disposal / Dumping Grounds                                      |
|--|---------------------|-----------------------------|---|
| Inert C&D materials disposed, m <sup>3</sup>   | Nil                 | 619726.37                   | Tuen Mun Area 38  |
|  | Nil                 | 245453.3                    | TKO137 FB   |
| Inert C&D materials recycled, m <sup>3</sup>   | Nil                 | 358660.77                   | HY/2009/11<br>ex-PCWA<br>TS4 /TS2<br>WDII<br>Lun Ku Tan<br>WENT |
| Non-inert C&D materials disposed, m <sup>3</sup>   | 60.97               | 4309.81                     | SENT Landfill   |
| Non-inert C&D materials recycled, m <sup>3</sup>   | Nil                 | 5496446.2                   | Xun Xiang Metalware<br>Skylight Recycle<br>(paper)              |
| Chemical waste disposed, kg  | Nil                 | 22755                       | Dunwell Group   |
| Marine Sediment (Type1-Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal), m <sup>3</sup> | Nil                 | 5684                        | South of the Brothers   |

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

5.4.5. Inert and Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.21**.

**Table 5.21 Details of Waste Disposal for Contract no. HY/2009/19**

| Waste Type*  | Quantity this month | Cumulative-to-Date | Disposal / Dumping Grounds |
|--|---------------------|--------------------|----------------------------|
| Inert C&D materials disposed, ton  | Nil                 | 649146.32          | N/A                        |
| Inert C&D materials recycled, ton  | Nil                 | 82349.7            | N/A                        |
| Non-inert C&D materials disposed, ton  | 80.57               | 4815.89            | SENT Landfill              |
| Non-inert C&D materials recycled, ton  | Nil                 | 548.4              | N/A                        |
| Chemical waste disposed, kg  | 0.49                | 9.92               | N/A                        |
| Marine Sediment (Tunnel) (Type-1 Open Sea Disposal), m <sup>3</sup>  | Nil                 | 20556              | South of Cheung Chau       |
| Marine Sediment (Tunnel) (Type 1- Open Sea Disposal (Dedicated Sites) & Type 2 – Confined Marine Disposal), m <sup>3</sup> | Nil                 | 30751              | East of Sha Chau           |

Contract no. HK/2012/08 Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai West under FEP-09/364/2009/B

5.4.6. No inert and Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.22**.

**Table 5.22 Details of Waste Disposal for Contract no. HK/2012/08**

| Waste Type*                                       | Quantity this month | Cumulative-to-Date | Disposal / Dumping Grounds                                      |
|---|---------------------|--------------------|---|
| Inert C&D materials disposed, m <sup>3</sup>      | 2765                | 161438             | TKO 137   |
| Inert C&D materials recycled, m <sup>3</sup>      | 10664               | 69618              | N/A   |
| Non-inert C&D materials disposed, m <sup>3</sup>  | 32                  | 1502               | SENT  |
| Non-inert C&D materials recycled, m <sup>3</sup>  | Nil                 | Nil                | N/A   |
| Chemical waste disposed, kg                       | Nil                 | Nil                | N/A   |
| Marine sediment (Type 1) disposal, m <sup>3</sup> | Nil                 | 3145               | South of Cheung Chau / East of Sha Chau / South of The Brothers |

Contract no. HY/2010/08 Central – Wan Chai Bypass (CWB) – Tunnel (Slip Road 8) under FEP-10/364/2009/B

5.4.7. No inert and Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.23**.

**Table 5.23 Details of Waste Disposal for Contract no. HY/2010/08**

| Waste Type*                                      | Quantity this month | Cumulative-to-Date | Disposal / Dumping Grounds |
|--|---------------------|--------------------|----------------------------|
| Inert C&D materials disposed, m <sup>3</sup>     | 16247.9             | 557372.1           | TM 38                      |
|  | 31378.8             | 204874.6           | WENT                       |
|  | 11437.2             | 71381.7            | SENT                       |
|  | 27534.6             | 38120              | TKO area 137               |
| Inert C&D materials recycled, m <sup>3</sup>     | Nil                 | Nil                | N/A                        |
| Non-inert C&D materials disposed, m <sup>3</sup> | 87.2                | 1905.66            | SENT                       |
| Non-inert C&D materials recycled, m <sup>3</sup> | Nil                 | Nil                | N/A                        |
| Chemical waste disposed, kg                      | Nil                 | 979                | N/A                        |

Contract no. HY/2011/08 Central –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

5.4.8. No inert and Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.24**.

**Table 5.24 Details of Waste Disposal for Contract no. HY/2011/08**

| Waste Type*                                      | Quantity this month | Cumulative-to-Date | Disposal / Dumping Grounds |
|--|---------------------|--------------------|----------------------------|
| Inert C&D materials disposed, m <sup>3</sup>     | Nil                 | 367.68             | CWPF & TKO137              |
| Inert C&D materials recycled, m <sup>3</sup>     | Nil                 | Nil                | N/A                        |
| Non-inert C&D materials disposed, m <sup>3</sup> | 37.99               | 729.57             | SENT                       |
| Non-inert C&D materials recycled, ton            | Nil                 | 31.72              | N/A                        |
| Chemical waste disposed, kg                      | Nil                 | 3800               | N/A                        |



## 6.0 COMPLIANCE AUDIT

6.0.1. The Event Action Plan for construction noise, air qualities are presented in **Appendix 6.1**.

### 6.1 Noise Monitoring

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

6.1.1. No exceedance was recorded in the reporting month.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention Exhibition Centre – Tunnel Works under FEP-02/364/2009

6.1.2. Two limit level exceedances were recorded at M1a- Harbour Road Sports Centre on 04 and 24 May 2016 in this reporting month.

6.1.3. Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 04 May 2016 while operation of Hydromil Trench Cutter at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor as major noise contribution during monitoring on 24 May 2016. As such, the exceedances were considered as non-Project related.

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

6.1.4. Two limit level exceedances were recorded at M1a- Harbour Road Sports Centre on 04 and 24 May 2016 in this reporting month.

6.1.5. Breaking works at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 04 May 2016 while operation of Hydromil Trench Cutter at Ex- Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor as major noise contribution during monitoring on 24 May 2016. As such, the exceedances were considered as non-Project related.

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

6.1.6. No exceedance was recorded in the reporting month.



Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

6.1.7. No exceedance was recorded in the reporting month.

Contract no. HY/2010/08 – Central-Wanchai Bypass – Tunnel (Slip Road 8 Section) under FEP-10/364/2009/B

6.1.8. No exceedance was recorded in the reporting month.

Contract no. HY/2011/08 Central –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

6.1.9. No exceedance was recorded in the reporting month.

### Real Time Noise Monitoring

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- 6.1.10. No limit level exceedance was recorded at RTN1-FEHD Hong Kong Transport Section Whitfield Depot in the reporting month.
- 6.1.11. No limit level exceedances were recorded at RTN2a-Electric Centre in the reporting month.
- 6.1.12. Limit level exceedances were recorded at RTN3-Yue Lee Mo Fan Memorial School on 27 April 2016, 3 and 10 May 2016 in the reporting month. On 27 April 2016 during the monitoring period, no construction works was undertaken under Contract HY/2009/19 and cast-in-item installation and erection of formwork was conducted under Contract HY/2009/19 on 03 and 10 May 2016 respectively. Based on relevant data from Hong Kong observatory, adverse weather condition with significant rainfall was recorded on 27 April 2016 amber rainstorm warning signal and red rainstorm warning signal was hoisted on 03 and 10 May 2016 respectively and considered as the major noise contribution. As such, the exceedances were considered as non-project related.
- 6.1.13. Limit level exceedances were recorded at RTN4-Causeway Bay Community Centre on 04 May 2016 in the reporting month. On 04 May 2016, segment installation was conducted under HY/2009/19 while external panel installation works was observed undertaken by non-CWB Contractor at Causeway Bay Community Centre near the monitoring station. As such, the exceedance was considered as non- Project related.

Contract no. HY/2011/08 Central –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- 6.1.14. No limit level exceedance was recorded at RTN1-FEHD Hong Kong Transport Section Whitfield Depot in the reporting month.
- 6.1.15. No limit level exceedances were recorded at RTN2a-Electric Centre in the reporting month.

### 6.2 Air Quality Monitoring

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

- 6.2.1. No exceedance was recorded in the reporting month.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

- 6.2.2. No exceedance was recorded in the reporting month.

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- 6.2.3. No exceedance was recorded in the reporting month.

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) FEP-06/364/2009/A

6.2.4. No exceedance was recorded in the reporting month.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

6.2.5. No exceedance was recorded in the reporting month.

Contract no. HK/2012/08 Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai West under FEP-09/364/2009/B

6.2.6. No exceedance was recorded in the reporting month.

Contract no. HY/2010/08 – Central-Wanchai Bypass – Tunnel (Slip Raod 8 Section) under FEP-10/364/2009/B

6.2.7. No exceedance was recorded in the reporting month.

Contract no. HY/2011/08 Central –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

6.2.8. No exceedance was recorded in the reporting month.

### **6.3 Review of the Reasons for and the Implications of Non-compliance**

6.3.1. There was no non-compliance from the site audits and monitoring in the reporting period. The observations and recommendations made in each individual site audit session were presented in Section 8.

### **6.4 Summary of action taken in the event of and follow-up on non-compliance**

6.4.1 There was no particular action taken since no non-compliance was recorded from the site audits and monitoring in the reporting period.

## **7.0 CUMULATIVE CONSTRUCTION IMPACT DUE TO THE CONCURRENT PROJECTS**

- 7.0.1. According to Condition 3.4 of the EP-364/2009/C, this section addresses the relevant cumulative construction impact due to the concurrent activities of the current projects including the Central Reclamation Phase III (CRIII), Wan Chai Development Phase II (WDII), Central-WanChai Bypass (CWB), Island Eastern Corridor Link projects (IECL) and Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel).
- 7.0.2. According to the Final EM&A Report of Central Reclamation Phase III (CRIII) for Contract HK 12/02, the major construction activities were completed by end of January 2014 and no construction activities were undertaken thereafter and the water quality monitoring was completed in October 2011. As such, it is considered that there were no cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) undertaken by contractor HK12/02 in the reporting month.
- 7.0.3. According to the construction programme of Central-Wanchai Bypass at Wanchai West at the Central Reclamation Phase III area include structural works for tunnel construction, road works and drainage works, removal of bulkhead wall and seawall modification were performed in May 2016 reporting month. As no project related exceedance were recorded during the reporting period, cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) was considered as insignificant.
- 7.0.4. According to the construction programme of Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects, the major construction activities under Wan Chai Development Phase II were tunnel works, D-wall construction at Wan Chai East and culvert construction, tunnel construction and ELS works at Wan Chai West. The major construction activities under Central-Wan Chai Bypass and Island Eastern Corridor Link Projects were road works at Central Interchange, backfilling works at Ex-PCWAW, ELS works and retaining wall construction at Victoria Park, ELS works and tunnel works at TS3; bridge construction, piling and tunnel works at North Point area in the reporting month. In addition, other non-Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects was observed undertaken at Wan Chai North area.
- 7.0.5. No significant air quality impact from construction activities was anticipated in the reporting month. Besides, no project related exceedance was recorded during the air quality and noise environmental monitoring events in the reporting month. Thus, it is evaluated that the cumulative construction impact from the concurrent projects including Central Reclamation Phase III (CRIII), Wan Chai Development Phase II (WDII), Central-WanChai Bypass (CWB), Island Eastern Corridor Link projects (IECL) was insignificant.

**8.0 ENVIRONMENTAL SITE AUDIT**

8.0.1. During this reporting month, weekly environmental site audits were conducted for Contracts no. HY/2009/15, HY/2009/18, HY/2009/19, HK/2012/08, HK/2009/01, HK/2009/02, HY/2010/08 and HY/2011/08. No non-conformance was identified during the site audits. The Contractors rectified major observations and recommendations made during the audit sessions. No non-conformance was identified during the site inspections.

8.0.2. Site inspections for Contract no. HY/2009/15 were carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.1**.

**Table 8.1 Summary of Environmental Inspections for Contract no. HY/2009/15**

| Item     | Date        | Observations   | Action taken by Contractor                | Completion date                       |
|----------|-------------|--|---|---------------------------------------|
| 160503_1 | 3 May 2016  | Leaked oil shall be cleaned as chemical waste  | Leaked oil was cleared as chemical waste. | Completion as observed on 10 May 2016 |
| 160510_1 | 10 May 2016 | Muddy seepage between the seawall block bunding was observed The Contractor was advised to check and rectify the boundary section and provide necessary pumping and collection for muddy effluent. | No further muddy seepage was observed.    | Completion as observed on 17 May 2016 |
| 160517_1 | 17 May 2016 | Contraction shall provide regular cleaning to drainage system to avoid potential contaminated discharge (EX-PCWA North)  | Cleaning was provided to drainage system  | Completion as observed on 24 May 2016 |
| 160531_1 | 31 May 2016 | Watering shall be provided to breaking works (EX-PCWA North)   | Watering was provided to breaking work    | Completion as observed on 7 June 2016 |

8.0.3. Site inspections for Contract no. HY/2009/18 were carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.2**.

**Table 8.2 Summary of Environmental Inspections for Contract no. HY/2009/18**

| Item     | Date       | Observations   | Action taken by Contractor              | Completion date                       |
|----------|------------|--|---|---------------------------------------|
| 160505_1 | 5 May 2016 | Drip tray shall be provided to oil container                       | Drip tray was provided to oil container | Completion as observed on 12 May 2016 |
| 160505_2 | 5 May 2016 | Watering or covering shall be provided to stockpile stored on-site | Stockpile has been cleaned              | Completion as observed on 12 May 2016 |

| Item     | Date        | Observations   | Action taken by Contractor                        | Completion date                       |
|----------|-------------|--|---|---------------------------------------|
| 160512_1 | 12 May 2016 | Protection shall be provided to drainage system using impermeable material as soon as possible | Protection was provided to drainage system        | Completion as observed on 19 May 2016 |
| 160519_1 | 19 May 2016 | Watering or covering shall be provided to avoid dust emission                                  | Covering was provided to stockpile stored on-site | Completion as observed on 26 May 2016 |
| 160526_1 | 26 May 2016 | Contractor shall cover the stockpile stored on-site  | Covering was provided to stockpile stored on-site | Completion as observed on 2 June 2016 |

- 8.0.4. Site inspections for Contract no. HY/2009/19 were carried out during this reporting period. No observation was found in the reporting month.
- 8.0.5. Site inspections for Contract no. HK/2009/01 was carried out during this reporting period. No observation was found in the reporting month.
- 8.0.6. Site inspections for Contract no. HK/2009/02 were carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.5**.

**Table 8.5 Summary of Environmental Inspections for Contract no. HK/2009/02**

| Item      | Date        | Observations   | Action taken by Contractor  | Completion date                       |
|-----------|-------------|--|---|---------------------------------------|
| 160428_01 | 28 Apr 2016 | Drip trays shall be provided for all oil containers at Portion 3&4                             | Drip tray were provided for oil containers at Portion 3&4   | Completion as observed on 5 May 2016  |
| 160428_02 | 28 Apr 2016 | Leaked oil from plant shall be properly collected as soon as possible at Portion 5.            | Leaked oil was cleaned at Portion 5.  | Completion as observed on 5 May 2016  |
| 160512_01 | 12 May 2016 | Silt screen at RW21-P789 station shall be properly maintain                                    | Silt screen at RW21-P789 was deployed at seabed level.  | Completion as observed on 20 May 2016 |
| 160512_02 | 12 May 2016 | Stagnant water in the drip tray shall be cleared to maintain adequate capacity in Portion 3&4  | Stagnant water have been removed  | Completion as observed on 20 May 2016 |
| 160520_01 | 20 May 2016 | The gap of the silt screen at RW21-P789 station shall be minimized and enclose the intake area | The deployed silt screen has enclosed the intake area and the gap between silt curtains were minimized. | Completion as observed on 25 May 2016 |

| Item      | Date        | Observations  | Action taken by Contractor                             | Completion date                       |
|-----------|-------------|---|--|---------------------------------------|
| 160520_01 | 20 May 2016 | Drip tray shall be provided for oil container at Portion 5. | Drip tray was provided for oil container at Portion 5. | Completion as observed on 25 May 2016 |

8.0.7. Site inspection for Contract no. HK/2012/08 were carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.6**.

**Table 8.6 Summary of Environmental Inspections for Contract no. HK/2012/08**

| Item      | Date        | Observations  | Action taken by Contractor                                 | Completion date                       |
|-----------|-------------|---|--|---------------------------------------|
| 160520_01 | 20 May 2016 | A valid NRMM label on generator at Zone B shall be provided.    | A valid and proper NRMM label was placed on the generator. | Completion as observed on 26 May 2016 |
| 160526_01 | 26 May 2016 | Drip tray shall be provided for chemical containers at MVB area | Oil containers were provided with drip tray at MVB area.   | Completion as observed on 31 May 2016 |

8.0.8. Site inspections for Contract no. HY/2010/08 were carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.7**

**Table 8.7 Summary of Environmental Inspections for Contract no. HY/2010/08**

| Item     | Date        | Observations  | Action taken by Contractor  | Completion date                       |
|----------|-------------|---|---|---------------------------------------|
| 160427_1 | 27 Apr 2016 | Leaked oil shall be cleared as chemical waste and drip tray shall be provided to oil containers (TS3 North)   | Leaked oil has been cleaned   | Completion as observed on 4 May 2016  |
| 160504_1 | 4 May 2016  | Silt curtain and impermeable barrier provided to removal of temporary reclamation process shall enclose the working barge entirely without opening and according to method statement (TS3 East) | Silt curtain and impermeable barrier was provided to removal of temporary reclamation process | Completion as observed on 12 May 2016 |
| 160504_2 | 4 May 2016  | Damaged embankment/bunding shall be repaired and mud sitting on the edge of seawall shall be cleaned regularly (TS3 North)  | Embankment has been repaired and mud sitting on the edge of seawall has been cleared          | Completion as observed on 18 May 2016 |
| 160512_1 | 12 May 2016 | Contractor shall critically review the treatment process and capacity as well as desilting process to avoid overflow into nearby water(TS3 west)  | No overflow during desilting process was observed   | Completion as observed on 18 May 2016 |



| Item     | Date        | Observations  | Action taken by Contractor  | Completion date                         |
|----------|-------------|---|---|---|
| 160518_1 | 18 May 2016 | Contractor shall critically review the waste water holding pit capacity and repair the damaged piles to avoid potential contaminated runoff to nearby water (TS3 North) | Damaged piles was repaired and additional bunding was provided around waste water holding pit to avoid overflow | Completion as observed on 25 May 2016   |
| 160518_2 | 18 May 2016 | Hoarding with 2.4m height shall be provided along the site boundary (Victoria Park)   | Hoarding with 2.4m height was provided to concerned location  | Completion as observed on 25 May 2016   |
| 160525_1 | 25 May 2016 | Hoarding shall be extend with 2.4m height to avoid potential dust emission (Victoria Park)  | Pending for Contractor follow up action   | Pending for Contractor follow up action |
| 160525_2 | 25 May 2016 | Mud sitting on the edge of seawall shall be cleaned regularly (TS3 North)   | Mud sitting on the edge of seawall was cleaned  | Completion as observed on 1 June 2016   |

8.0.9. Site inspections for Contract no. HY/2011/08 were carried out during this reporting period. No observation was found in the reporting month.

**9.0 COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION**

- 9.0.1. One environmental complaint was received in the reporting month.
- 9.0.2. A EPD complaint regarding noise nuisance referred by RSS was received by ET on 27 May 2016 (EPD Ref: H05/RS/00012646-16 dated 27 May 2016). The complainant reported that a generator was operated round-the-clock in the Chun Wo- CRGL JV construction site near Wanchai Ferry Pier that cause noise nuisance. (Contract No. HK/2009/02).

ET confirmed with the Resident Site Staff that a generator deployed under Contract HK/2009/02 near the covered walkway for Wanchai Ferry Pier at Portion 2 area and was operated from 1900hrs on 24 May 2016 to 0700hrs on 25 May 2016 and from 1900hrs on 25 May 2016 to 0700hrs on 26 May 2016. The generator was used for the power supply of lighting inside Tunnel Portions 1 and 2.

According to the relevant site records provided by RSS, a generator deployed under Contract HK/2009/02 near the covered walkway for Wanchai Ferry Pier at Portion 2 area and was operated from 1900hrs on 24 May 2016 to 0700hrs on 25 May 2016 and from 1900hrs on 25 May 2016 to 0700hrs on 26 May 2016. The generator was used for the power supply of lighting inside Tunnel Portions 1 and 2. Based on review on site information, relevant Construction Noise Permits GW-RS0516-16 and GW-RS0390-16 for the operation of the concerned generator were confirmed in place while no sufficient site information was considered available to demonstrate the use of acoustic enclosure for the operation of the generator following the special condition 3d item 4. Despite the above, the Contractor of HK/2009/02 has suspended the use of the generator at the concerned location after 2300hours to minimize potential noise concern to the surroundings from 28 May 2016.

Nevertheless, the Contractor of HK/2009/02 was reminded to upkeep the site control system for construction works carried out during restricted hours and night time for Construction Noise Permit compliance and maintain regular maintenance of the plant and equipment deployed to avoid potential nuisance to the nearby public.

- 9.0.3. The details of cumulative complaint log and updated summary of complaints are presented in **Appendix 9.1**
- 9.0.4. Cumulative statistic on complaints and successful prosecutions are summarized in **Table 9.1** and **Table 9.2** respectively.

**Table 9.1 Cumulative Statistics on Complaints**

| Reporting Period            | No. of Complaints |
|-----------------------------|-------------------|
| May 2016                    | 1                 |
| September 2010 – April 2016 | 64                |
| Total                       | 65                |

**Table 9.2 Cumulative Statistics on Successful Prosecutions**

| <b>Environmental Parameters</b> | <b>Cumulative No. Brought Forward</b> | <b>No. of Successful Prosecutions this month (Offence Date)</b> | <b>Cumulative No. Project-to-Date</b> |
|---------------------------------|---------------------------------------|---|---------------------------------------|
| Air                             | -                                     | 0   | 0                                     |
| Noise                           | -                                     | 0   | 0                                     |
| Water                           | -                                     | 0   | 0                                     |
| Waste                           | -                                     | 0   | 0                                     |
| <b>Total</b>                    | <b>-</b>                              | <b>0</b>  | <b>0</b>                              |

**10 CONCLUSION**

10.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.

10.0.2. The scheduled construction activities and the recommended mitigation measures for the coming month are listed in **Table 10.1**. The construction programmes of individual contracts are provided in [Appendix 10.1](#).

**Table 10.1 Summary of Key Construction Activities of Individual Contract(s) to be commenced in Coming Reporting Month**

| Contract No. | Key Construction Works   | Recommended Mitigation Measures  |
|--------------|--|--|
| HY/2009/15   | <ul style="list-style-type: none"> <li>• Remedial works at Mined Tunnel</li> <li>• Remaining works inside tunnel at TS4 and TPCWAE</li> <li>• Removal of temporary reclamation at TPCWAW</li> </ul>                          | <ul style="list-style-type: none"> <li>• Dust control during dust generating activities and covering for stockpile stored on site.</li> <li>• Provide protection works and adequate drainage system to ensure no direct discharge into public drainage system or the nearby water.</li> <li>• Maintain regular cleaning of floating refuses within construction area.</li> </ul> |
| HY/2009/18   | <ul style="list-style-type: none"> <li>• Drainage works</li> <li>• Road works</li> <li>• Landscaping works</li> <li>• Modification and Construction of Sign Gantries / Traffic Signs</li> <li>• Maintenance works</li> </ul> | <ul style="list-style-type: none"> <li>• Dust control during dust generating activities</li> <li>• Provide protection works to ensure no runoff out of site area or direct discharge into public drainage system.</li> </ul>   |

|                   |  |  |
|-------------------|--|--|
| <p>HY/2009/19</p> | <ul style="list-style-type: none"> <li>• Pier construction for IEC</li> <li>• Construction of EVB</li> <li>• Column modification at F1 to F8</li> <li>• Oil Street drainage works</li> <li>• Approach ramp sheet piling and pre-bored piling works</li> <li>• Bridge construction and segment erection</li> <li>• Hing Fat Street modification works</li> <li>• EVA structure construction</li> <li>• Hing Fat Street Slip Road Bridge E parapet construction</li> <li>• EVB waterproofing works</li> <li>• Excavation / Construction of retaining wall</li> </ul> | <ul style="list-style-type: none"> <li>• Noise level shall be controlled by reducing the breaking operation rate.</li> <li>• Noise barrier shall be implemented</li> <li>• Dust control during dust generating works</li> <li>• Provide protection works and adequate drainage system to ensure no direct discharge into public drainage system or the sea.</li> </ul> |
| <p>HK/2009/01</p> | <ul style="list-style-type: none"> <li>• Stage 4 backfilling works</li> <li>• Reinstatement of outfall</li> </ul>  | <ul style="list-style-type: none"> <li>• Provide protection works and adequate drainage system to ensure no direct discharge into public drainage system or the sea.</li> <li>• Dust control during dust generating works</li> <li>• Noise mitigation measures during breaking works</li> </ul>  |

|                   |   |   |
|-------------------|---|---|
| <p>HK/2009/02</p> | <ul style="list-style-type: none"> <li>• Construction of pre-cast concrete cover</li> <li>• Tunnel OHVD construction</li> <li>• Tunnel wall and top slab construction</li> <li>• Waterproofing layer at tunnel top slab</li> <li>• Road side barrier construction</li> <li>• ELS S4 removal and king post load transfer</li> <li>• Tunnel backfilling</li> <li>• Removal of remaining temporary sheet-pile seawall</li> <li>• Removal of blockwork seawall near the interface between Portion 2 and Portion 5</li> <li>• Diaphragm wall construction</li> <li>• Excavation work</li> <li>• Strut installation</li> <li>• Demolition of ex-WSD salt water pumping station</li> </ul> | <ul style="list-style-type: none"> <li>• Dust control during dust generating works</li> <li>• Proper maintenance boundary surface runoff protection and water treatment facilities to avoid potential runoff related impact.</li> <li>• Provision of protection measures to ensure no runoff out of site area or direct discharge into public drainage system.</li> </ul>                           |
| <p>HK/2012/08</p> | <ul style="list-style-type: none"> <li>• Grouting</li> <li>• Construction of MVB</li> <li>• Construction of concrete plug</li> <li>• Excavation and lateral support installation for CWB tunnel</li> <li>• Structural works for CWB tunnel construction</li> </ul>  | <ul style="list-style-type: none"> <li>• Dust control during dust generating works</li> <li>• Provide protection works and adequate drainage system to ensure no direct discharge into public drainage system.</li> </ul>   |
| <p>HY/2010/08</p> | <ul style="list-style-type: none"> <li>• Tree protection works next to existing BGO,</li> <li>• Drainage improvement works,</li> <li>• Excavation and Lateral Support for U-structure,</li> <li>• Pipe piling &amp; grouting works,</li> <li>• Utility diversion works,</li> <li>• Retaining wall works</li> <li>• ELS works,</li> <li>• Construction works for subway extension</li> </ul>   | <ul style="list-style-type: none"> <li>• Dust control during dust generating works and stockpile stored on site.</li> <li>• Appropriate measures should be taken to ensure adequate protections are provided for trees being transplanted and retained on site.</li> <li>• Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system.</li> </ul> |



|            |   |   |
|------------|---|---|
| HY/2011/08 | <ul style="list-style-type: none"><li>• Construction of Ventilation Buildings, inclusive of Administration Building, East Ventilation Shaft, West Ventilation Building</li><li>• Construction of Tunnel Thermal Barrier</li><li>• Installation of Electricals and Mechanicals</li><li>• Installation of Tunnel Features</li></ul> | <ul style="list-style-type: none"><li>• Dust control during dust generating works</li></ul> |
|------------|---|---|

10.0.3. The construction works of Contract no. 04/HY/2006 – Reconstruction of Bus Terminus near Man Yiu Street and Man Kwong Street under FEP-04/364/2009/A was completed, and the FEP was surrendered by the Contractor on 11 February 2011.

10.0.4. The construction works of Contract no. HY/2009/17 - Advance piling works at Whitfield Depot under FEP-03/264/2009 was completed, and the FEP was surrendered by the Contractor and found in order by EPD on 25 April 2013.

10.0.5. The construction works of Contract HK/2010/06 was completed, and the FEP-08/364/2009/A was surrendered by the Contractor on 3 October 2014.