AECOM

Highways Department

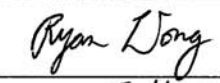
Agreement No. CE 20/2009 (EP)

Environmental Team for the Widening of Tolo Highway / Fanling Highway between Island House Interchange and Fanling

(Stage 1) Between Island House Interchange and Tai Hang - Investigation

Quarterly EM&A Summary Report for August 2010 - October 2010

[11/2010]

	Name	Signature
Prepared & Checked:	Ryan Wong	
Reviewed & Approved:	Y T Tang	

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AECOM Asia Co. Ltd.
11/F, Grand Central Plaza, Tower 2, 138 Shatin Rural Committee Road, Shatin, NT, Hong Kong
Tel: (852) 3105 8686 Fax: (852) 2317 7609 www.aecom.com

Our ref PEJ/AFK/TK/dm/T264022/22.01/L-0051
T 2828 5919
E terence.kong@mottmac.com.hk
Your ref

Hyder Consulting Limited
47/F Hopewell Centre,
183 Queen's Road East,
Wanchai,
Hong Kong.

17 November 2010
By Fax (2805 5028) and Post

Attn.: Mr. Tony Wong

Dear Sir,

Widening of Tolo Highway between Island House Interchange and Tai Hang
Environmental Permit No.: EP-324/2008
Condition 3.3 – Submission of Quarterly EM&A Summary Report for August to October 2010 (Stage 1)

We refer to the revised Quarterly EM&A Summary Report for August to October 2010 for the captioned Project submitted by ET via email on 17 November 2010. We confirm we have no comment.

Yours faithfully
for MOTT MACDONALD HONG KONG LIMITED

Terence Kong
Independent Environmental Checker

c.c. HyD – Mr. Raymond Yip / Mr. C K Chan / Mr. William Chiang (Fax: 2761 4864/ 2714 5198)
ETL, AECOM – Mr. Y T Tang (Fax: 2891 0305)

TABLE OF CONTENTS

List of Tables

Figures

List of Appendix

EXECUTIVE SUMMARY

The proposed widening of Tolo Highway and Fanling Highway between Island House Interchange and Fanling (the Project) is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and is governed by an Environmental Permit (EP-324/2008)(EP). The Project aims to widen Tolo Highway and Fanling Highway to dual 4-lane carriageway in order to alleviate the current traffic congestion problems and to cope with the increasing transport demands to and from the urban areas and also cross boundary traffic.

The construction works for this Project will be delivered in 2 stages i.e. Stage 1 (between Island House Interchange and Tai Hang) and Stage 2 (between Tai Hang and Wo Hop Shek Interchange). The construction works of Stage 1 were commenced on 23 November 2009 and will tentatively be completed in December 2013; while construction programme of Stage 2 is currently under review. This report focuses on Stage 1 of the Project only.

The construction phase of Stage 1 under the EP and the EM&A programme for Stage 1 of the Project commenced on 23 November 2009. The impact environmental monitoring and audit includes air quality and noise monitoring.

This report documents the findings of EM&A works conducted in the period between 1 August 2010 and 31 October 2010. As informed by the Contract 1 Contractor (CSCE), construction activities in the reporting period were:

- Temporary shoring, sheetpiling and excavation;
- Construction of box culverts;
- Pipe pile wall construction;
- Pile cap construction;
- Bridge column and pier head construction;
- Bored piling;
- Tree felling and transplanting of trees;
- Installation of soil nails;
- Construction of footings and foundation for temporary bridges;
- Widening and demolition of existing central dividers;
- Retaining wall construction;
- At-grade road construction;
- Widening and demolition of central dividers;
- Retaining wall construction;
- Construction of temporary bridges; and
- Demolition of bridges.

The construction works carried out by the Contract 2 Contractor (Gammon) in the reporting period were:

- Setting out the locations of pilecaps for the New Lam Kam Flyover and retaining walls;
- Erection of new fence and signboards;
- Setting up the temporary traffic arrangement;
- Excavation of trial trenches to locate existing utilities;
- Ground investigation and predrilling;
- Construction of haul road;
- Piling and pile cap of bridges;
- Construction of Pilecap / Spread footing of Noise Barrier / Semi Noise Enclosure;
- Slope works, including installation of soil nail;
- Entrusted watermain works;
- Retaining wall construction; and
- Modification of existing bridge structure.

Environmental Monitoring Works

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

24-hour TSP monitoring	16 sessions
1-hour TSP monitoring	48 sessions
Daytime Noise monitoring	13 regular sessions
Environmental Site inspection	13 sessions (Contract 1) / 13 sessions (Contract 2)

Breaches of Action and Limit Levels for Air Quality

No exceedance of Action and Limit Level was recorded for both 1-hour and 24-hour TSP monitoring in the reporting period.

Breaches of Action and Limit Levels for Noise

There were three noise related complaints followed up by Environmental Team in the reporting period, hence three (3) Action Level exceedances of noise were recorded.

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

Complaint, Notification of Summons and Successful Prosecution

Four (4) environmental complaints were followed up by Environmental Team in the reporting quarter.

A complainant expressed that noisy construction activities, including road breaking works, at the section of Tolo Highway near Wun Yiu towards Kowloon had already been started at 7:20am on 7 August 2010 (Saturday). As informed by the Contractor and the Engineer, the noise was generated from a breaker for breaking an existing retaining wall at Bridge 10A East Abutment, which started at 7:20am. It was within the non-restricted hours for general construction work of the Noise Control Ordinance. Although there was no noise monitoring exceedance recorded at the nearest noise monitoring station at PLK Tin Ka Ping Primary School and the construction period was in compliance with the NCO, the Contractor was recommended to take further mitigation measures to reduce the disturbance to the nearby residents. Upon receipt of the complaint, an ad-hoc noise monitoring was conducted on 9 August 2010 at 11:15am – 11:45am on the ground floor at King Nga Court. The Leq (30mins) was 69.3 dB(A) which was within the standard of 75 dB(A).

A complainant expressed that noise was generated from piling and breaking works, with heavy mechanical plants, still taking place after 7:00pm on 7 August 2010 (Saturday) at the construction site for expressway construction facing Tai Po, King Nga Court. According to the site diary provided by the Engineer, no construction work was carried out after 6:00pm on 7 August 2010 (Saturday). Besides, according to the Contractor's record, most of the staffs had got off duty before 7:00pm on 7 August 2010. Noise from heavy mechanical plants was unlikely to be generated from the Project after 7:00pm on 7 August 2010.

A complainant expressed that noise from piling works began from 7:00am on general days and noise was still generated from construction works on Sunday. In accordance with the Noise Control Ordinance, 7:00am-7:00pm of any general days are the non-restricted hours of general construction work. Therefore, commencement of construction work at 7:00am on general days is in compliance with the NCO. No noise monitoring exceedance was recorded at the nearest noise monitoring station at PLK Tin Ka Ping Primary School. However, according to the site diary provided by the Engineer, only general site cleaning works, without utilizing any mechanical plant, were carried out by the Contractor's staffs on Sunday (8 August 2010). The construction noise was unlikely to be generated from the Project on 8 August 2010 (Sunday).

EPD referred a public complaint regarding generation of construction dust from road extension construction site at Tolo Highway, near Pun Chun Yuen, and requested follow-up. As informed by the Contract 2 (HY/2009/08) Contractor (Gammon), drilling works of pre-bored H-pile at Bridge 12A (the site opposite to Pun Chun Yuen) was taking place on 17 September 2010 and mitigation measures taken included circular dust cover surrounding the drill rod and casing; u-shape tarpaulin sheet covering the mast and drill rod; and water spraying to suppress the dust. However, there was a period on the date when water pressure for water spraying was low due to water hose being twisted and the dust from the drilling works could not be suppressed efficiently. Although the 24-hour TSP monitoring at Tai Kwong Secondary School Roof/F – AM4 on 17

September 2010 was below the Action Level, the Contractor was advised to ensure the mitigation measures on dust suppression were implemented properly throughout their construction activities.

No notification of summons and successful prosecution was received in the reporting quarter.

1 INTRODUCTION

Background

1.1. Tolo Highway and Fanling Highway are expressways in the North East New Territories connecting Sha Tin, Tai Po and Fanling. These highways form a vital part of the strategic Route 1, which links Hong Kong Island to Shenzhen. At present, this section of Route 1 is dual 3-lane carriageway. However, at several major interchanges along this section of Route 1, the highway is only dual-2 lane. Severe congestion is a frequent occurrence during peak periods, particularly in the Kowloon bound direction.

1.2. The objective of the Project "Widening of Tolo Highway / Fanling Highway between Island House Interchange and Fanling" is to widen Tolo Highway and Fanling Highway to dual 4-lane carriageway in order to alleviate the current traffic congestion problems and to cope with the increasing transport demands to and from the urban areas and also cross boundary traffic.

1.3. The Project is a designated project and is governed by an Environmental Permit (EP-324/2008)(EP).

1.4. The scope of the Project comprises mainly:

(i) Widening of a 5.7 km section of Tolo Highway and 3.0 km section of Fanling Highway between Island House Interchange and Wo Hop Shek Interchange from the existing dual 3-lane to dual 4-lane, including construction of new vehicular bridges;

(ii) Widening of interchange sections at Island House Interchange, Tai Po North Interchange, and Lam Kam Road Interchange from dual 2-lane to dual 3-lane, including realignment of various slip roads;

(iii) Modification and reconstruction of highways, vehicular bridges, underpasses and footbridges.

1.5. The construction works for this Project will be delivered in 2 stages i.e. Stage 1 (between Island House Interchange and Tai Hang) and Stage 2 (between Tai Hang and Wo Hop Shek Interchange). The construction works of Stage 1 commenced on 23 November 2009 and will tentatively be completed in December 2013; while construction programme of Stage 2 is currently under review. This report focuses on Stage 1 of the Project only.

1.6. The construction works for Stage 1 of the Project will be implemented under 2 works contracts (Contract 1 and Contract 2). Contract 1 covers the section of Tolo Highway between Island House Interchange and Ma Wo, Contract 2 covers the section of Tolo Highway between Ma Wo and Tai Hang.

1.7. China State Construction Engineering (Hong Kong) Ltd. (CSCE) was commissioned as the Contractor of Contract 1 of Stage 1 of the Project, while Gammon Construction Limited was commissioned as the Contractor of Contract 2 of Stage 1 of the Project. AECOM Asia Co. Ltd. was employed by Highways Department as the Environmental Team to undertake the EM&A works for Stage 1 of the Project.

1.8. Hyder-Arup-Black and Veatch Joint Venture are appointed by Highways Department as the consultants for the design and construction assignment for the Tolo project under Agreement No. CE 58/2000 (i.e. the Engineer for the Contracts) and Mott MacDonald Hong Kong Ltd. acts as the Independent Environmental Checker (IEC) for the Contracts.

1.9. The construction phase of Stage 1 under the EP commenced on 23 November 2009.

1.10. According to the updated EM&A Manual of Stage 1 of the Project, there is a need of an EM&A programme including air quality and noise monitoring. The EM&A programme for Stage 1 of the Project commenced on 23 November 2009.

Scope of Report

1.11. This is the fourth Quarterly Environmental Monitoring and Audit (EM&A) Summary Report under the Agreement No. CE 20/2009 (EP) - Widening of Tolo Highway between Island House Interchange and Tai Hang – Investigation. This report presents a summary of the environmental monitoring and audit works, list of activities and mitigation measures proposed by the ET for Stage 1 of the Project from 1 August 2010 to 31 October 2010.

Project Organization

1.11.1. The project organization is shown in Appendix A. The key personnel contact names and numbers are summarized in Table 1.1. With effect from 23 August 2010, Terence Kong would replace Joseph Chan as the Independent Environmental Checker (IEC) for Stage 1 of the Project.

1.12.

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
ER of Stage 1, Contract 1 (Hyder-Arup-Black & Veatch Joint Venture)	Chief Resident Engineer /TOLO1	James Tsang	9038 8797	26674000
ER of Stage 1, Contract 2 (Hyder-Arup-Black & Veatch Joint Venture)	Chief Resident Engineer /TOLO2	Paul Appleton	9097 5833	2653 2348
IEC of Stage 1 (Mott MacDonald Hong Kong Limited)	Independent Environmental Checker	Terence Kong	2828 5919	2827 1823
Contractor of Stage 1, Contract 1 (CSCE)	Site Agent	David Lau	9499 0818	2667 5666
	Environmental Officer	Michael Tsang	9277 4956	2667 5666
Contractor of Stage 1, Contract 2 (Gammon)	Construction Manager	K F Tam	9032 1133	2559 3410
	Environmental Officer	Kenneth Chan	9300 2182	2559 3410
ET of Stage 1 (AECOM)	ET Leader	Y T Tang	2893 1551	2891 0305

Summary of Construction Works

1.13. The construction phase of Stage 1 under the EP commenced on 23 November 2009. Details of the construction works carried out by the Contract 1 Contractor (CSCE) in this reporting period are listed below:

- Temporary shoring, sheetpiling and excavation;
- Construction of box culverts;
- Pipe pile wall construction;
- Pile cap construction;

- Bridge column and pier head construction;
- Bored piling;
- Tree felling and transplanting of trees;
- Installation of soil nails;
- Construction of footings and foundation for temporary bridges;
- Widening and demolition of existing central dividers;
- Retaining wall construction;
- At-grade road construction;
- Widening and demolition of central dividers;
- Retaining wall construction;
- Construction of temporary bridges; and
- Demolition of bridges.

1.14. The construction works carried out by the Contract 2 Contractor (Gammon) in the reporting period were:

- Setting out the locations of pilecaps for the New Lam Kam Flyover and retaining walls;
- Erection of new fence and signboards;
- Setting up the temporary traffic arrangement;
- Excavation of trial trenches to locate existing utilities;
- Ground investigation and predrilling;
- Construction of haul road;
- Piling and pile cap of bridges;
- Construction of Pilecap / Spread footing of Noise Barrier / Semi Noise Enclosure;
- Slope works, including installation of soil nail;
- Entrusted watermain works;
- Retaining wall construction; and
- Modification of existing bridge structure.

1.15. The Construction Programmes are shown in Appendix B.

1.16. The general layout plan of the Project site showing the contract area is shown in Figure 1.1.

1.17. The mitigation measures implementation schedule are presented in Appendix C.

2 ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

Monitoring Parameters

2.1. The updated EM&A Manual designated 4 air quality monitoring stations and 7 noise monitoring stations to monitor environmental impacts on air quality and noise due to Stage 1 of the Project.

2.2. For air quality, monitoring locations AM2 (Shan Tong New Village) and AM3 (Riverain Bayside) were set up at the proposed locations in accordance with updated EM&A Manual. However, for monitoring locations: Dynasty View and Tai Po Garden, proposed in the updated EM&A Manual, as approval could not be obtained from the owner's corporation of the premises, impact air quality monitoring was conducted at alternative monitoring locations: AM1 (Ha Wun Yiu) and AM4 (Tai Kwong Secondary School). The monitoring station at 13 Ha Wun Yiu (AM1) was relocated to Fan Sin Temple, 3 Sheung Wun Yiu (AM1A) in February 2010.

2.3. For noise, monitoring stations NM3 (Wong Shiu Chi Middle School), NM6 (PLK Tin Ka Ping Primary School) and NM7 (Riverain Bayside) were set up at the proposed locations in accordance with updated EM&A Manual. However, for monitoring locations: Tai Po Garden, Dynasty View, Hong Kong Teachers' Association Lee Heng Kwei Secondary School and Grand Palisades, proposed in the updated EM&A Manual, as approval of access could not be obtained from the owner's corporation of the premises or the principal of the education institutes, impact noise monitoring was conducted at alternative monitoring locations: NM1 (Tai Kwong Secondary School), NM2 (Ha Wun Yiu), NM4 (Uptown Plaza) and NM5 (The Paragon).

2.4. The monitoring locations are depicted in Figure 2.1.

2.5. The updated EM&A Manual also required environmental site inspections for air quality, noise, water quality, chemical, waste management, ecology and landscape and visual impact.

Environmental Quality Performance Limits (Action/Limit Levels)

2.6. The environmental quality performance limits (i.e. Action/Limit Levels) of air quality monitoring were derived from the baseline air quality monitoring results at the respective monitoring stations (AM1(A), AM2, AM3 and AM4), while the environmental quality performance limits of noise monitoring were defined in the EM&A Manual.

2.7. The environmental quality performance limits of air quality and noise monitoring and are given in Appendix D.

Environmental Mitigation Measures

2.8. Relevant environmental mitigation measures were stipulated in the Particular Specification and EP (No.: EP-235/2005/B) for the Contractor to adopt. A list of mitigation measures and their implementation statuses are given in Appendix C.

3 AIR QUALITY MONITORING

3.1. Air quality monitoring, including 1-hour and 24-hour TSP, was conducted at least 3 times every 6 days and at least once every 6 days respectively at the 4 monitoring stations (AM1A, AM2, AM3 and AM4), in accordance with the updated EM&A Manual.

3.2. The weather was mostly sunny, but with several downpours in the reporting quarter. The major dust source of the construction work area included concrete breaking, soil nail installation and excavation activities from Stage 1 of the Project, as well as nearby traffic emissions.

3.3. The number of monitoring events and exceedances recorded in each month of the reporting quarter are presented in Table 3.1 and Table 3.2 respectively.

Table 3.1 Summary of Number of Monitoring Events for 1-hr & 24-hr TSP Concentration

Monitoring Parameter	Location	No. of monitoring events		
		Aug 10	Sep 10	Oct 10
1-hr TSP	AM1A	15	18	15
	AM2	15	18	15
	AM3	15	18	15
	AM4	15	18	15
24-hr TSP	AM1A	5	6	5
	AM2	5	6	5
	AM3	5	6	5
	AM4	5	6	5

Table 3.2 Summary of Number of Exceedances for 1-hr & 24-hr TSP Monitoring

Monitoring Parameter	Location	Level of Exceedance	Level of Exceedance		
			Aug 10	Sep 10	Oct 10
1-hr TSP	AM1A	Action	0	0	0
		Limit	0	0	0
	AM2	Action	0	0	0
		Limit	0	0	0
	AM3	Action	0	0	0
		Limit	0	0	0
	AM4	Action	0	0	0
		Limit	0	0	0
		Total	***0***	***0***	***0***
24-hr TSP	AM1A	Action	0	0	0
		Limit	0	0	0
	AM2	Action	0	0	0
		Limit	0	0	0
	AM3	Action	0	0	0
		Limit	0	0	0
	AM4	Action	0	0	0
		Limit	0	0	0
		Total	***0***	***0***	***0***

3.4. All 1-hour and 24-hour TSP results were below the Action and Limit Level at all monitoring locations in the reporting quarter.

3.5. The graphical plots of the air quality monitoring results are provided in Appendix E.

4 CONSTRUCTION NOISE MONITORING

4.1. Construction noise monitoring was conducted at the 7 monitoring stations (NM1, NM2, NM3, NM4, NM5, NM6 and NM7) for at least once per week during 07:00 – 19:00 in the reporting quarter.

4.2. The major noise source during the noise monitoring included construction activities of Stage 1 of the Project, nearby traffic noise and general school activities.

4.3. The number of construction noise monitoring events and exceedances are summarized in Table 4.1 and Table 4.2 respectively.

Table 4.1 Summary of Number of Monitoring Events for Construction Noise

Monitoring Parameter	Location	No. of monitoring events		
		Aug10	Sep 10	Oct 10
Construction Noise	NM1	4	5	4
	NM2	4	5	4
	NM3	4	5	4
	NM4	4	5	4
	NM5	4	5	4
	NM6	4	5	4
	NM7	4	5	4

Table 4.2 Summary of Number of Monitoring Exceedances for Construction Noise

Monitoring Parameter	Location	Level of Exceedance	Level of Exceedance		
			Aug10	Sep 10	Oct 10
Construction Noise	NM1	Limit	0	0	0
	NM2		0	0	0
	NM3		0	0	0
	NM4		0	0	0
	NM5		0	0	0
	NM6		0	0	0
	NM7		0	0	0
		Total	***0***	***0***	***0***

4.4. All measured construction noise levels were below the Limit level and the graphical plots of the trends of the monitoring results are provided in Appendix F.

4.5. There were three (3) noise related complaints followed up by Environmental Team in the reporting period. Hence, three (3) Action Level exceedances were recorded.

4.6. The details of the noise related complaints are described in Section 8 of this report.

5 ENVIRONMENTAL SITE INSPECTION AND AUDIT

5.1. Site Inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for Stage 1 of the Project. In the reporting quarter, 13 site inspections were carried out for Contract 1 and Contract 2 of the Project respectively.

5.2. Particular observations during the site inspections for Contract 1 are described below:

Air Quality

5.1.1 Mud trails were observed on the public road at the site entrances of Wall 8 and Wall 10. The Contractor was reminded to properly wash the wheels of all vehicles leaving the site.

Noise

5.2.1. No adverse observation was identified in the reporting quarter.

Water Quality

5.2.2. Stagnant water was observed inside a drip tray under a generator at Lam Kam Bridge area. The Contractor was reminded to clear the stagnant water.

Chemical and Waste Management

5.2.3. Construction materials were scattered on the slope facing the MTR rail and general refuse was mixed with C&D materials at Lam Kam Bridge area. The Contractor was reminded to sort the C&D materials and maintain housekeeping on site properly.

5.1.2 Oil drums were observed placed inside the general refuse storage area near the site entrance at Wall 8. The Contractor was reminded that chemicals and their containers should be stored separately from general refuse.

5.1.3 An oil drum was observed placed on ground without drip tray at Bridge 10A. The Contractor was reminded to provide drip tray to all chemical containers on site.

Landscape and Visual Impact

5.2.4. No adverse observation was identified in the reporting quarter.

Particular observations during the site inspections for Contract 2 are described below:

Air Quality

5.1.4 A truck was not washed properly before it left the site at W73. The Contractor was requested to manually wash the wheels and body of all vehicles leaving the site at W73.

5.1.5 Cement powder was scattered on the ground at W72B. The Contractor was requested to clean up the cement powder.

5.1.6 Empty cement bags were accumulated next to the grouting station at Lam Kam Flyover Pier 3. The Contractor was advised to dispose of the empty cement bags properly.

Noise

5.1.7 Noise emission labels were missing on air compressors at Lam Kam Flyover Pier 3 and Bridge 12A P1. The Contractor was reminded to fit noise labels at obvious location of the air compressors.

5.1.8 The flap of a piling crane was opened during operation at Bridge 12A P1. The Contractor was reminded to close the flaps of the mechanical equipments during operation.

Water Quality

5.1.9 The water discharged through the trapezoidal channel at W73 was silty. Although sand bags were provided in the channel to trap the sediment in the water, the Contractor was advised to collect and divert the water to proper desilting facility before discharge.

Chemical and Waste Management

5.1.10 Chemical containers and empty oil drums at Slope 37 and S30A were placed on ground without drip tray. The Contractor was reminded to provide drip tray to all chemicals and remove the empty oil drums on site.

5.1.11 Oil stains were observed on the ground at Bridge 12A P1. The Contractor was advised to clear the oil stains and treat the contaminated soil as chemical waste.

5.1.12 Excavated mud was overflowed into a drip tray underneath an air compressor at Bridge 12A P1. The Contractor was requested to remove the mud inside the drip tray and keep excavated materials away from drip trays.

5.1.13 Oil stain was observed on ground next to the drip tray of a generator at Area 25 near Tai Wo Road. The Contractor was advised to provide a large drip tray to the generator.

Landscape and Visual Impact

5.1.14 Electric wires were found tied onto retained trees and a metal bar was found stuck on the retained trees at Tai Wo Road Gate 3. The Contractor was reminded not to tie electric wires on retained trees nor use them as physical support. The Contractor was also advised to wrap the trunks of the easily accessible retained trees with hessian for protection.

6 ADVICE ON THE SOLID AND LIQUID WASTE MANAGEMENT STATUS

6.1.1 The Contract 1 Contractor (CSCE) and the Contract 2 Contractor (Gammon) are registered as chemical waste producers for Stage 1 of the Project. C&D material sorting was carried out on site. Sufficient numbers of receptacles were available for general refuse collection.

6.1.2 As advised by the Contract 1 Contractor (CSCE), 5995m^3 of inert C&D material was disposed as public fill to Tuen Mun 38, while 207kg and 359m^3 of general refuse were disposed at NENT landfill, 107143kg of metal, 342kg of paper/cardboard and 40kg of plastic were collected by recycling contractor in the reporting quarter. 46035m^3 of inert C&D materials were reused on site.

6.1.3 As advised by the Contract 2 Contractor (Gammon), 7889m^3 of inert C&D material was disposed to Tuen Mun 38 and 876m^3 of general refuse was disposed to NENT landfill in the reporting period.

6.1.4 The Contract 1 Contractor (CSCE) and the Contract 2 Contractor (Gammon) are advised to maintain on site waste sorting and recording system and maximize reuse / recycle of C&D wastes.

7 SUMMARY OF NON-COMPLIANCE (EXCEEDANCES) OF THE ENVIRONMENTAL QUALITY

7.1. There was no 1-hour TSP, 24-hour TSP and construction noise monitoring exceedance recorded in the reporting quarter.

7.2. There were three (3) noise related complaints followed up by Environmental Team in the reporting period. Hence, three (3) Action Level exceedances were recorded.

8 ENVIRONMENTAL COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

8.1. A 24-hour complaint hotline at 6628 8366 has been established for Stage 1 (both Contract 1 and Contract 2) of the Project. Also a 24-hour hotline at 8201 6669 is established for Contract 1 of the Project. The hotline numbers are displayed at the site entrances, fencings and project signboards, as well as printed on publications for the public, such as newsletters.

8.2. No notification of summons and prosecutions was received in the reporting quarter.

8.3. Four (4) environmental complaints were followed up by Environmental Team in the reporting quarter.

8.4. A complainant expressed that noisy construction activities, including road breaking works, at the section of Tolo Highway near Wun Yiu towards Kowloon had already been started at 7:20am on 7 August 2010 (Saturday). As informed by the Contractor and the Engineer, the noise was generated from a breaker for breaking an existing retaining wall at Bridge 10A East Abutment, which started at 7:20am. It was within the non-restricted hours for general construction work of the Noise Control Ordinance. Although there was no noise monitoring exceedance recorded at the nearest noise monitoring station at PLK Tin Ka Ping Primary School and the construction period was in compliance with the NCO, the Contractor was recommended to take further mitigation measures to reduce the disturbance to the nearby residents. Upon receipt of the complaint, an ad-hoc noise monitoring was conducted on 9 August 2010 at 11:15am – 11:45am on the ground floor at King Nga Court. The Leq (30mins) was 69.3 dB(A) which was within the standard of 75 dB(A).

8.5. A complainant expressed that noise was generated from piling and breaking works, with heavy mechanical plants, still taking place after 7:00pm on 7 August 2010 (Saturday) at the construction site for expressway construction facing Tai Po, King Nga Court. According to the site diary provided by the Engineer, no construction work was carried out after 6:00pm on 7 August 2010 (Saturday). Besides, according to the Contractor's record, most of the staffs had got off duty before 7:00pm on 7 August 2010. Noise from heavy mechanical plants was unlikely to be generated from the Project after 7:00pm on 7 August 2010.

8.6. A complainant expressed that noise from piling works began from 7:00am on general days and noise was still generated from construction works on Sunday. In accordance with the Noise Control Ordinance, 7:00am-7:00pm of any general days are the non-restricted hours of general construction work. Therefore, commencement of construction work at 7:00am on general days is in compliance with the NCO. No noise monitoring exceedance was recorded at the nearest noise monitoring station at PLK Tin Ka Ping Primary School. However, according to the site diary provided by the Engineer, only general site cleaning works, without utilizing any mechanical plant, were carried out by the Contractor's staffs on Sunday (8 August 2010). The construction noise was unlikely to be generated from the Project on 8 August 2010 (Sunday).

8.7. EPD referred a public complaint regarding generation of construction dust from road extension construction site at Tolo Highway, near Pun Chun Yuen, and requested follow-up. As informed by the Contract 2 (HY/2009/08) Contractor (Gammon), drilling works of pre-bored H-pile at Bridge 12A (the site opposite to Pun Chun Yuen) was taking place on 17 September 2010 and mitigation measures taken included circular dust cover surrounding the drill rod and casing; u-shape tarpaulin sheet covering the mast and drill rod; and water spraying to suppress the dust. However, there was a period on the date when water pressure for water spraying was low due to water hose being twisted and the dust from the drilling works could not be suppressed efficiently. Although the 24-hour TSP monitoring at Tai Kwong Secondary School Roof/F – AM4 on 17 September 2010 was below the Action Level, the Contractor was advised to ensure the mitigation measures on dust suppression were implemented properly throughout their construction activities.

8.8. Statistics on complaints, notifications of summons and successful prosecutions are summarized in Appendix G.

9 COMMENTS, RECOMMENDATIONS AND CONCLUSIONS

Comments on Mitigation Measures

9.1. According to the environmental site inspections performed in the reporting quarter, the following recommendations were provided:

Air Quality Impact

- All plants on site should be properly maintained to avoid dark smoke emission.
- All vehicles should be washed to remove any dusty materials before leaving the site.
- Haul roads should be sufficiently dampened to minimize fugitive dust generation.
- Wheel washing facilities should be properly maintained to ensure properly functioning.
- Temporary exposed slopes and open stockpiles should be properly covered.
- Enclosure should be erected for cement mixing operations.
- Ensure all vehicles to be washed before leaving the site.
- Provide water spraying to suppress fugitive dust for any dusty construction activity.

Construction Noise Impact

- Properly erect the temporary noise barriers in accordance with the Environmental Permit requirement.
- Noise barriers should be closely packed and properly aligned to ensure effective noise reduction.
- Noisy operations should be oriented to a direction away from sensitive receivers as far as possible.
- Sound insulation materials shall be wrapped at the breaker tip for concrete breaking works.
- Better scheduling of construction works to minimize noise nuisance.

Water Quality Impact

- Stagnant water accumulated in drip trays should be removed.
- Silt, debris and leaves accumulated at public drains and perimeter u-channels should be cleaned up regularly.
- Silty effluent should be treated/desilted before discharged. Untreated effluent should be prevented from entering public drain channel.

Chemical and Waste Management

- C&D material should be sorted and removed timely.
- All plants and vehicles on site should be properly maintained to prevent oil leakage.
- Oil stains on soil surface and empty chemical containers should be cleared and disposed of as chemical waste.

Landscape and Visual Impact

- All retained trees should be properly fenced off at the works area.

Recommendations on EM&A Programme

9.2. The impact air quality and noise monitoring programme ensured that any deterioration in environmental condition was readily detected and timely actions taken to rectify any non-compliance. Assessment and analysis of monitoring results collected demonstrated the environmental acceptability of Stage 1 of the Project. The weekly environmental site inspections ensured that all the environmental mitigation measures recommended in the ERR were effectively implemented.

9.3. The EM&A programme effectively monitored the environmental impacts from the construction activities and no particular recommendation was advised for the improvement of the programme.

Conclusions

9.4. The construction phase and EM&A programme of Stage 1 of the Project commenced on 23 November 2009.

9.5. Air quality and noise monitoring, weekly site inspections were carried out in the reporting quarter, in accordance with the updated EM&A manual.

9.6. All 1-hour and 24-hour TSP monitoring results complied with the Action / Limit Level in the reporting quarter.

9.7. There were (3) noise related complaints followed up by Environmental Team in the reporting period. Hence, three (3) Action Level exceedances were recorded. No Limit Level exceedance for construction noise was recorded at all monitoring stations in the reporting period.

9.8. Four (4) environmental complaints were followed up by Environmental Team in the reporting period

9.9. No notification of summons and prosecution was received in the reporting quarter.