

AMEC Hong Kong Construction

KCRC West Rail CC202 - Yuen Long and Long Ping Station

Monthly EM&A Report
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EXECUTIVE SUMMARY

AMEC-Hong Kong Construction CC202 Joint Venture, the main Contractor for West Rail Contract No. CC202, set up an Environmental Team to undertake the Environmental Monitoring and Audit (EM&A) works in accordance with the EM&A Manual. Hyder has been employed as the Contractor's Environmental Team (CET). This is the monthly EM&A report which summarises the impact monitoring and auditing data for [May 2003](#).

Construction Activities

Major construction activities undertaken in Yuen Long area during non-restricted hours included excavation & construction of drainage / water works, utilities/road diversion, road construction & widening, erection & dismantle of bamboo scaffold platform, ABWF E&M work, construction of planter/footpath, erection maintenance platform and granolithic finish of footbridge.

Construction activities undertaken in Long Ping area during non-restricted hours included utilities installation, construction of storm drains and sewers, roadworks, watermain laying, ABWF E&M work and modification works at Chun Yin Garden.

No construction activity was undertaken during restricted hours in May 2003.

Air Quality Impact Monitoring

Air quality monitoring of 24-hour TSP was carried out in accordance with the Contract specific EM&A Manual. No exceedance of action or limit levels was recorded during the reporting month.

Noise Impact Monitoring

Noise monitoring was carried out in accordance with the Contract specific EM&A Manual. No exceedance of limit level was recorded during non-restricted hours in the reporting month. However, two noise complaints were received that was counted as action level exceedances of noise criteria.

Water Quality Impact Monitoring

Water quality monitoring was carried out in accordance with the Contract specific EM&A Manual. Except on 5 May 2003, no water sample was collected at the monitoring location U6B throughout the reporting month due to shallow depth. Action level exceedance for Suspended Solid (SS) level was recorded at D6 on 5 May 2003. According to the CET field observation, the high level SS was due to channel cleaning (carried out by DSD) at the upstream of monitoring location D6.

Waste Management

In May 2003, 865 m³ of inert waste included CDG, rock & mud, 376.44 tonnes of general refuse, 600 Litres of waste oil and 48,600 Litres of chemical toilet waste were disposed offsite.

Environmental Auditing

The IEC site audit and CET site inspection were carried out on 23 and 20 of May 2003 respectively. All observations were recorded in the audit checklist and passed to the Contractor together with recommendation. No notice of Non-Compliance (NC) was

received. However the Contractor was reminded to implement suitable mitigation measures to reduce fugitive dust, to provide drip tray for onsite storage of oil drums, to clean the site entrance regularly.

Complaints

Two constructional noise related complaints were received respectively at the end of April 2003 and May 2003. The first complaint was regarding noise generated from Yuen Long Station overnight on 28 April 2003. It was suspected that the noise was caused by overnight speaker testing in the station. Since the noise was not related to construction activity undertaken by the Contractor, this complaint was transferred to the RSS of West Rail to follow up. The second complaint was regarding grinding noise generated from construction site near Long Ping Station during night time from 10 May 2003 to 12 May 2003. However, The Contractor had confirmed that no construction activity was being carried out during that foresaid periods.

Notification of Summons, Successful Prosecutions and Corrective Actions

No Notification of Summons was received during the reporting month. There was a court hearing at Fanling Court No.4 on 15 May 2003 and 16 May 2003 for Summons No. FLS6993/2002 (breaches of Cap. 400 Noise Control Ordinance on 30 July 2002) and next hearing is arranged on 10 June 2003.

Future Key Issues

The construction activities for the upcoming three months will be very similar to those in this reporting month and therefore, with the implementation of the corrective measures, no significant environment impact is expected.

1. BACKGROUND INFORMATION

1.1 PROJECT INFORMATION

West Rail Contract No. CC 202 (hereafter known as the Project) comprises of the construction works for two of the West Rail intermediate stations - Yuen Long Station and Long Ping Station. The site of Yuen Long Station is located on the eastern fringe of Yuen Long New Town. The site of Long Ping Station is bounded to the north by Long Ping Estate, to the east by Wang Yip Street, to the south by Yuen Long On Ning Road and to the west by Chun Yi Square. Figure 1.1 shows the Project location.

AMEC-Hong Kong Construction CC-202 Joint Venture (AHKJV) is the main Contractor for the Project. It is a joint venture between AMEC International Construction (HK) Limited and Hong Kong Construction (Holdings) Limited. Hyder Consulting has been employed as the Contractor's Environmental Team (CET) and undertaking the Environmental Monitoring and Audit (EM&A) programme in accordance with the contract specific EM&A Manual which has already been issued.

Environmental monitoring is carried out at the selected monitoring location in order to determine the level of impact from construction activities at the sensitive receivers. If exceedances of Action or Limit (A/L) Levels are recorded, appropriate actions are required by various parties in accordance with relevant Event and Contingency Plans.

1.2 CONSTRUCTION PROGRAMME

It is anticipated that the overall project programme from the detailed design to completion of all civil works will take approximately 48 months. Construction of the two stations will include all activities from foundation works to electrical and mechanical installation. As for all stations on the West Rail alignment, there will be associated footbridges, subways and passenger transport interchanges. Figures 1.2 and 1.3 present a summary of the construction programme.

1.3 PROJECT ORGANISATION AND MANAGEMENT

An Environmental Team is set up for the Project construction phase. The organisation and lines of communication with respect to environmental works are shown in Figure 1.4.

In general, CET is responsible for regular on-site monitoring and audits/inspection on environmental issues and for reporting to the Contractor any potential environmental deficiencies. The Independent Environmental Checker (IEC) is responsible for carrying out the formal audit and verifying the overall environmental performance. Finally, the Environmental Manager of KCRC will manage the IEC who would review the reports prior to the submission to EPD.

2. SUMMARY OF EM&A REQUIREMENT

2.1 AIR QUALITY

2.1.1 Air Quality Parameters

24-hour Total Suspended Particulates (TSP) level should be measured at the selected air monitoring locations in accordance with the EM&A Manual. Monitoring under typical weather conditions (with no adverse weather such as typhoon signal or rain storm warning) was undertaken at each monitoring location once per week. Information such as date of monitoring, duration, weather conditions, equipment used and monitoring results will be recorded on the field data sheet developed for the Project.

2.1.2 Monitoring Methodology

24-hour TSP monitoring is carried out by using High Volume Air Sampler (HVAS) and follows the standard sampling method as set out in High Volume Method for Total Suspended Particulates, Part 50 Chapter 1 Appendix B, Title 40 of the Code of Federal Regulations of the USEPA.

All HVAS were calibrated before commencement of monitoring using a standard orifice 5-points calibration method with orifice calibrator to determine the actual flow rate of each HVAS. This will be used for the calculation of the TSP.

After sampling, the filter paper loaded with dust is kept in a clean and tightly sealed plastic bag. The filter paper is then re-conditioned in a dessicator for 24 hours before obtaining the weight under laboratory conditions.

The average concentration of the suspended particulates will be calculated based on the following information obtained from monitoring:

- Flow rate
- Weight of the filter paper before and after sampling
- Sampling period indicated by the elapsed-time meter

All samples collected once per week and they will be kept in good condition (i.e. stored in sealed plastic bags, with brief description of the monitoring dates and locations) for a period of 6 months before disposal.

2.1.3 Monitoring Equipment/Calibration

High Volume Air Sampler (HVAS) - Model GMW GS2310-105 is used for 24 hours TSP monitoring. It complies with the USEPA specifications in Appendix B Part 5 - Reference Method for the Determination of Suspended Particulate matter in the Atmosphere (High-Volume Method) of the Code of Federal Regulation dated July 1, 1991.

Calibration Kit Model - G2523 are used for calibration of the HVAS. Recalibration will be carried out in accordance with the requirements stated in the manufacturers' operating manual. The calibration worksheets present in Appendix I.

2.1.4 Monitoring Locations

Air sensitive receivers were identified in the West Rail EM&A Manual (see Figure 2.1) of which eight were selected for air quality impact monitoring. They are listed in Table 2.1 and shown in Figure 2.2 and 2.3.

Name	Description	Location of HVAS
Ying Lung Wai (12/9)	A small village with more than 30 village houses, locates next to the proposed Yuen Long Station along Ng Wo Road.	ground level, near Ying Lung Wai car park, facing Proposed CDA Dev. Area 15
Sun Yuen Long Centre (12/13)	It is a housing estate with 5 blocks, 30 storey high. It locates on Castle Peak Road Yuen Long Section, on top of the LRT Station.	placed on podium of Blk 4, which is above the 4 storey high parking lot, facing Proposed CDA Dev. Area 15
Shung Tak School (12/15)	It is an old style, 2 storey high primary school, locates at Yuen Long Kau Hui and adjacent to Long Yat Road.	placed on 1/F podium, facing Sun Yuen Long Centre
Cheong Wai Mansion (12/19)	It is a housing block, 20 storey high. It locates on Castle Peak Road Yuen Long Section, opposite to the Sun Yuen Long Centre.	placed on 1/F podium facing Sun Yuen Long Centre
Area WS10 Site Boundary Fish Market (12/37) <i>(The monitoring terminated since late October 2002.)</i>	An open area along Long Yip Street and Wang Yip Streets adjacent to Bechin Centre. This area was previous occupied as a wholesale fish market.	placed at the corner of CC202 site boundary, on ground level of the open field
Tai Kiu Tsuen (12/47)	It is a small village with more than 30 village houses, locates along Yuen Long On Lok Road and adjacent to Tai Kiu Road.	placed on ground level at a car park which located in the heart of Tai Kiu Tsuen
Yuen Long Chun Kwong School (13/50)	It is a standard, 5 storey high primary school, locates adjacent to Ping Shun Road.	placed on ground level at the school playground
Long Ping Estate Ho Ping House (13/57)	It is a housing estate with 15 blocks, 20 storey high. It locates adjacent to the Long Ping Road and Ping Yee Road.	placed on 1/F podium at Ho Ping House, overlooking Wang Tat Road

Table 2.1 List of Locations for Air Impact Monitoring

2.1.5 Action and Limit Level

The Action and Limit Levels for the TSP 24-hours air quality monitoring is shown in Table 2.2. The actual Action and Limit Levels at each monitoring location is based upon the results obtained during the baseline monitoring which is presented in Section 4.

In cases where exceedance of Action and/or Limit Levels for air quality occur, Event Contingency Plans (ECPs), which is developed by KCRC, should be implemented. The ECPs for Action and Limit Levels exceedances are shown in Tables 2.3 and 2.4 respectively. ECP for Complaints Handling is shown in Table 2.5.

Level	Total Suspended Particulates ($\mu\text{g m}^{-3}$)
Action	For baseline $< 108 \mu\text{g m}^{-3}$, average of 130% of baseline and the Limit level
	For $108 < \text{baseline} < 154 \mu\text{g m}^{-3}$, $200 \mu\text{g m}^{-3}$
	For Baseline $> 154 \mu\text{g m}^{-3}$, 130% of baseline level
Limit	$260 \mu\text{g m}^{-3}$

Table 2.2 Action and Limit Levels for 24-hour Air Quality Monitoring

Step	Day	Action	Contractor/ CET	RSS	IEC
1.	1	Identify exceedance from monitoring data and initiate corrective action. Submit data to RSS with observed source(s) of pollution.	■		
2.	1	Input monitoring data and observed pollution source(s) into WREMS on same day when data is submitted from CET. WREMS will automatically generate a Notice of Exceedance (NOE) and send it to the IEC via email.		■	
3.	1	On same day of receipt of the NOE, check monitoring data trend and Contractor's work method. Decide if a formal NOE will be issued. If so, forward the NOE via email to KCRC and RSS. If not, close the Exceedance record in the WREMS.			■ □
4.	1	Confirm receipt of NOE to IEC.		■	
5.	1	Issue NOE to Contractors and remind their contractual obligations.		■	
6.	2	Propose remedial measures to RSS within 1 working day of receipt of NOE.	■	□	
7.	2	Review and agree the proposed remedial measures and make recommendations where necessary.		■ □	■ □
8.	2	Implement the proposed remedial measures once they have been agreed.	■		
9.	-	Arrange site visit to ensure implementation of the agreed remedial measures.		■	■
10.	-	Increase monitoring frequency to assess effectiveness of remedial measures. (Be specific about the frequency for the different parameters. e.g. once every 3 days for 24-hr dust, daily for 1-hr dust) Submit monitoring data to RSS for entering into the WREMS once they are available.	■		
11.	-	If exceedance continues, arrange meeting with Contractor and RSS to review the implemented remedial measures and identify further remedial measures. Go to step 8. If exceedance stops for 3 consecutive monitoring, resume normal monitoring frequency.	■	■ □	■
12.	-	Inform IEC the closure of exceedance.		■	
13.	-	Close the exceedance record in the WREMS.			■

Table 2.3 Event Contingency Plan for Action Level Exceedance

Step	Day	Action	Contractor/ CET	RSS	IEC
1.	1	Identify exceedance from monitoring data and initiate corrective action. Submit data to RSS with observed source(s) of pollution.	■		
2.	1	Input monitoring data and observed pollution source(s) into WREMS on same day when data is submitted from CET. WREMS will automatically generate a Notice of Exceedance (NOE) and send it to the IEC via email.		■	
3.	1	On same day of receipt of the NOE, check monitoring data trend and Contractor's work method. Decide if a formal NOE will be issued. If so, forward the NOE via email to KCRC and RSS. If not, close the Exceedance record in the WREMS.			■ □
4.	1	Confirm receipt of NOE to IEC on receipt of NOE.		■	
5.	1	Issue NOE to Contractors and remind their contractual obligations.		■	
6.	1	Take immediate action to avoid further exceedance.	■		
7.	2	Propose remedial measures to RSS within 1 working days of receipt of NOE.	■	□	
8.	2	Review and agree with the proposed remedial measures and make recommendations where necessary.		■ □	■ □
9.	2	Implement the proposed remedial measures once they have been agreed.	■		
10.	-	Arrange site visit to ensure implementation of agreed remedial measures.		■	■
11.	-	Increase monitoring frequency to assess effectiveness of remedial measures. (Be specific about the frequency for the different parameters. e.g. daily for all parameters) Submit monitoring data to RSS for entering into the WREMS once they are available.	■		
12.	-	If exceedance continues, arrange meeting with Contractor and RSS to review the implemented remedial measures and identify further remedial measures. Go to step 9. If exceedance stops for 3 consecutive monitoring, resume normal monitoring frequency.	■	■ □	■
13.	-	Inform IEC the closure of exceedance.		■	
14.	-	Close the exceedance record in the WREMS.			■

Table 2.4 Event Contingency Plan for Limit Level Exceedance

Step	Day	Action	Contractor/ CET	KCRC	RSS	IEC
1.	1	Party receiving complaint shall create a new complaint record in the WREMS. If the Contractor receives a complaint, the Contractor shall pass the information to the RSS for entering into the WREMS. WREMS then automatically sends a Notification of Complaint to KCRC, RSS and IEC via email.	■	■	■	
2.	1	RSS forward the complaint to Contractor/CET if that is not already received by the Contractor.			■	
3.	2	Within 1 working day after the receipt of the Notification of Complaint, provide RSS relevant works site information, e.g. types and locations of construction works.	■		□	
4.	2	Investigate the complaint to determine its validity, and to assess whether the source of the problem is due to the works activities. Report the validity of the complaint to KCRC and RSS.				■ □
5.	2	If complaint is valid and due to works, RSS shall notify the Contractor. If complaint is invalid or not due to works, Go to Step 11.			■	
6.	2	Propose mitigation measures to RSS within 1 working day of the receipt of the Notification.	■		□	
7.	2	Review and agree with the proposed mitigation measures and make recommendations where necessary.			■ □	■ □
8.	2	Implement the mitigation measures once they have been agreed.	■			
9.	4	Audit the implementation of the proposed mitigation measures on site within 2 working days after the measures have been agreed.			■ □	■ □
10.	-	Undertake additional monitoring to verify the situation where necessary.	■			
11.	4	Report the investigation results and subsequent actions taken to RSS within 2 working days after the implementation of mitigation measures.	■		□	
12.	5	Respond to the complainant within 1 working day after receiving the investigation report.		■		

Table 2.5 Event Contingency Plan for Complaints Handling

Step	Day	Action	Contractor/ CET	KCRC	RSS	IEC
13.	25	<p>If no further comments or complaints are received from the complainant within 20 working days after responding to the complainant, close the complaint record in the WREMS.</p> <p>If the complainant has further comments or complaints on the same issue, notify other parties on the same day and go to step 2.</p>		■	■ □	

■ action party

□ enter comments into appropriate non-compliance record in WREMS where applicable.

CET – Contractor’s Environmental Team

IEC – Independent Environmental Checker

KCRC – Designated personnel at KCRC

RSS – Resident Site Staff

WREMS - West Rail Environmental Management System

Table 2.5 Event Contingency Plan for Complaints Handling

2.2 NOISE

2.2.1 Noise Parameters

The construction noise level should be measured in terms of equivalent A-weighted sound pressure level (L_{eq}) measured in decibels (dB). Monitoring of $L_{eq(30\text{ min})}$ (6 x $L_{eq(5\text{ min})}$) is carried at the noise monitoring locations once every week during normal construction working hours (07:00-19:00 hours Monday to Saturday). Restricted hour noise monitoring (19:00-0700 hours or any time on general holidays including Sunday) in terms of $L_{eq(15\text{ min})}$ should be undertaken if construction activities are being undertaken during restricted hours under the conditions of valid Construction Noise Permits (CNPs).

The two statistical sound levels L_{10} and L_{90} ; the level exceeded for 10 and 90 percent of the time respectively, is also recorded during monitoring. Major noise sources observed, both on-site and off-site, will be recorded on the record data sheet. All measured data are provided in the electronic format and results are recorded to the nearest 0.1 dB.

2.2.2 Monitoring Methodology

Sound level meters, which comply with the International Electrotechnical Commission (IEC) Publication 651:1979 (Type 1) and 804:1985 (Type 1) specification as referred to in the Technical Memorandum (TM) issued under the Noise Control Ordinance, were used. Continuous baseline noise for the A-weighted levels L_{eq} , L_{10} and L_{90} were measured over a two week period, sampling period of 5 minutes was used throughout the monitoring. Average, by sound power, of six consecutive 5 minutes readings is used to provide $L_{eq(30\text{ min})}$ for non-restricted hours (07:00-19:00 hours Monday to Saturday) and three consecutive $L_{eq(5\text{ min})}$ reading is used to provide $L_{eq(15\text{ min})}$ for the restricted period. A facade correction of 3dB(A) will be applied to measurements which are carried out under free field conditions.

During the impact monitoring, parameters such as dates, weather conditions, equipment used, measurement results and major noise sources are recorded on the field data record sheet. In relation to the monitored noise levels, other noise sources such as road traffic may make a significant contribution to the overall noise environment. Therefore, the results of noise monitoring activities will take into account such influencing factors, which may not have been presented during the baseline monitoring period. All measurements are recorded to the nearest 0.1dB(A).

2.2.3 Monitoring Equipment/Calibration

Bruel & Kjaer (B&K) Precision Integrating Sound Level Meters of Type 2238 in compliance with the International Electrotechnical Commission Publication 651: 1979 (Type 1) and 804: 1985 (Type 1) Specifications, stated in the Technical Memorandum TM issued under the NCO, were used for impact monitoring.

Prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustic calibrator (B&K Type 4231) generating a known sound pressure level at a known frequency. Measurements are considered as valid only if the calibration level from before and after the noise measurement agree to within 1 dB.

2.2.4 Monitoring Locations

Noise sensitive receivers were identified in the West Rail EM&A Manual (see Figure 2.1). They are listed in Table 2.6 and shown in Figure 2.2 and 2.3.

Name	Description	Location of the Sound Level Meter
Ying Lung Wai (12/9)	A small village with more than 30 village houses, locates next to the proposed Yuen Long Station along Ng Wo Road.	On ground floor in car park next to the pond
Tung Tau Tsuen (12/11)	A village with more than 100 village houses, locate behind the proposed Yuen Long Station.	On ground floor outside the rural community, in car park near access road.
Sun Yuen Long Centre (12/13)	It is a housing estate with 5 blocks, 30 storey high. It locates on Castle Peak Road Yuen Long Section, on top of the LRT Station.	On podium, facing towards the CC202 site.
Shung Tak School (12/15)	It is an old style, 2 storey high primary school, locates at Yuen Long Kau Hui and adjacent to long Yat Road.	On podium, facing towards the CC202 site.
Cheong Wai Mansion (12/19)	It is a housing block, 20 storey high, locates on Castle Peak Road Yuen Long Section, opposite to the Sun Yuen Long Centre.	On podium, facing towards Castle Peak Road Yuen Long Section.
Tai Kiu Tsuen (12/47)	It is a small village with more than 30 village houses, locates along Yuen Long On Lok Road and adjacent to Tai Kiu Road.	On ground floor, at car park, facing Tai Kiu Road.
Yuen Long Chun Kwong School (13/50)	It is a standard , 5 storey high primary school, locates adjacent to Ping Shun Road.	1 st floor on stair, facing Ping Shun Road.
Pok Oi Hospital Leung Sing Tak Primary School (13/53)	It is a standard , 7 storey high primary school, locates adjacent to Ping Yee Road inside Long Ping Estate.	Ground floor at school playground, facing Ping Yee Road.

Table 2.6 List of Locations for Noise Impact Monitoring

Name	Description	Location of the Sound Level Meter
Long Ping Estate Ho Ping House (13/57)	It is a housing estate with 15 blocks, 20 storey high. It locates adjacent to the Long Ping Road and Ping Yee Road.	Ground floor of Ho Ping House, facing Shun Pui River.
Fu Loy Garden (13/58)	It is a housing block, 20 storey high, locates on Ma Wang Road and adjacent to Ping Shun Street, opposite to the Long Ping Estate.	Ground floor in front of Shop 1 facing towards On Lok Road.

Note: Impact monitoring at location 12/C2 Proposed CDA Development has been temporary suspended with the Client's agreement.

Table 2.6 List of Locations for Noise Impact Monitoring

2.2.5 Action and Limit Level

The Action and Limit Levels for construction noise is shown in Table 2.7. The construction site is located within the designated area EPD/NP/NT-04 and the Area Sensitivity Rate (ASR) is classified as "C", for urban area which are indirectly affected by the Influencing Factor (IF).

In cases where exceedances of Action level occur, since Action Level is based on receiving documented complaints, ECP for Complaints Handling (Table 2.5) should be implemented. If exceedance of the Limit Level occur, ECP for Limit Level Exceedance (Table 2.4) should be implemented.

Time Period	Action	Limit
0700-1900 on normal weekdays;	When one or more documented complaints are received	75dB(A)*
restricted hours (1900-0700 on any day including general holiday and Sunday)	When one or more documented complaints are received	refer to relevant valid Construction Noise Permit (CNP) listed in Section 3.2

Note: : The ASR for the site is classified as "C", which is for urban area indirectly affected.

Between 0700-1900 on normal weekdays, the construction noise limit for schools with noise insulation is 80dB(A) during normal term time and 75dB(A) during examination period.

Table 2.7 Action and Limit Levels for Construction Noise dB(A)

2.3 WATER QUALITY

2.3.1 Water Quality Parameters

Impact monitoring for water quality should be undertaken on three working days per week during the course of riverine works. Turbidity in NTU, dissolved oxygen (DO) in mg/l, dissolved oxygen saturation (DO%), temperature in °C, pH and flow rate in m/sec are measured in-situ. Suspended solids (SS) in mg/l is determined by the HOKLAS accredited laboratory. All measurements and sampling are taken at one tide condition.

2.3.2 Monitoring Methodology

Parameters, which are measured in-situ, such as DO, DO% saturation and temperature will be measured at all stations on each monitoring day. According to the EM&A Manual, impact monitoring is undertaken on three working days per week. All

measurements and samplings are taken at one depth, mid-depth. In cases where the difference in value between the first and second measurement of each set is greater than 25% of the value of the first measurement, the reading is discarded and further measurements are undertaken. Parameters measured on site are recorded on the field data record sheets.

Calibration of the DO probe was carried out before commencement of measurement and at the completion of measurement at the same day. The probe will be retrieved out of the water after the first measurement and redeployed for the subsequent measurements.

A stainless steel bucket fixed with a stainless steel chain is used for water sampling because the sampling points are too shallow. Sampling is taken at the middle of the watercourse, or at least 3m away from the bank of the watercourse. The samples are stored in plastic bottles and packed in ice pack (cooled to 4 °C without being frozen) and delivered to the laboratory as soon as possible for SS determination.

SS determination work is carried out by a HOKLAS accredited laboratory, with analysis commenced within 24 hours of collection of the water samples. This practice follows the standards described in APHA Standard Methods for the Examination of Water and Wastewater, 19th edition.

2.3.3 Monitoring Equipment/Calibration

The following equipment are used for water quality impact monitoring:

2.3.4 Dissolved Oxygen and DO Saturation

Portable, weatherproof DO measuring instrument with cable, sensor was used. It is capable for measuring:

- i. Dissolved oxygen levels in the range of 0-20mg/l and 0-200% saturation;
- ii. A temperature of 0-45 °C.

YSI-5739 probe and YSI 52 oxygen meter are used for the measurements. The DO meter calibrates initially and thereafter at 3 months intervals.

2.3.5 Turbidity Measurement Equipment

Turbidity of the water is measured in-situ by the nephelometric method. The portable, weatherproof turbidity-measuring unit operates from a DC power source and have a photoelectric sensor capable of measuring turbidity between 0-1000NTU.

The turbidity meter shall be calibrated to establish the relationship between turbidity readings (in NTU) and levels of suspended solids (in mg/l). After calibration, turbidity measurements shall be taken as a true representation of levels of suspended solids only before laboratory test results for suspended solids are known.

A Hach Model 2100P Turbidity Meter is used for turbidity measurement.

2.3.6 pH and Temperature Measuring Equipment

A YSI model with 50 feet cable, YSI-63 handheld equipment is used for the measurements. The pH levels and temperature are measured in-situ. The instrument

calibrates with standard buffer solution prior to use.

2.3.7 Flow Rate Measurement Equipment

A portable, battery operated flow meter is used to determine the water flow rate at the monitoring stations with sufficient water depth (>50cm) and accessible to a 15 feet flow probe. Flow rate is measured in meters per second.

A Global Flow Probe model FP201 is used for flow rate measurement in appropriate monitoring stations.

For monitoring stations with insufficient water depth, <50cm and/or inaccessible to a 15 feet flow probe, alternative method is used to estimate the flow rate. For example, recording the time required for a floating object to travel a known distance.

2.3.8 Monitoring Locations

Water quality monitoring locations have been identified in the West Rail EM&A Manual and the KCRC's Particular Specification (PS). A total of 4 monitoring locations are identified for the water quality impact monitoring and they are listed in Table 2.8. Figure 2.4 illustrates their locations.

Station I.D.	Description
U6A	Upstream of Shan Pui River near Tai Kiu Tsuen
U6B	Upstream of Shan Pui River near Yuen Long LRT Station
U6C	Upstream of Shan Pui River near Fung Chi Tsuen
D6	Downstream of Shan Pui River near Long Ping Estate

Table 2.8 List of Locations for Water Quality Impact Monitoring

2.3.9 Action and Limit Level

The Action and Limit Levels for water quality are listed in Table 2.9 below. The actual Action and Limit Levels at the monitoring station is based upon the results obtained during the baseline monitoring which is presented in Section 4.

In cases where any of the measured parameters exceed the Action and/or Limit Levels, ECP for Action and/or Limit Levels Exceedance, which shown in Table 2.3 and 2.4 respectively, should be implemented. ECP for Complaints Handling is shown in Table 2.5.

Parameters	Action	Limit
DO (mg/l)	5 Percentile of baseline data	1 percentile of baseline data
SS (mg/l)	95 percentile of baseline data and 120% of upstream control station's SS	99 percentile of baseline data and 130% of upstream control station's SS
Turbidity (NTU)	95 percentile of baseline data and 120% of upstream control station's turbidity	99 percentile of baseline data and 130% of upstream control station's turbidity

*Notes For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits
For SS and turbidity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.*

Table 2.9 Action and Limit Levels for Water Quality Monitoring

3. SUMMARY OF CONSTRUCTION ACTIVITIES

3.1 CONSTRUCTION ACTIVITIES

Major site construction activities undertaken during non-restricted hours in [May 2003](#) included the following:

Yuen Long area:

- Excavation and construction of drainage works and water works (including sheet pile)
- Utilities and road diversion
- Widening of Castle Peak Road
- Construction of Road L3, A1 & Tai Wan Tsuen Access Road
- Erection and dismantle of bamboo scaffold platform
- ABWF E&M works
- Construction of planter and footpath of Road L1, L2 & L3
- Erection of maintenance platform
- Granolithic finish of Footbridge No.1

Long Ping area:

- Utilities
- Construction storm drains and sewers (including sheetpiling)
- Roadworks (construction of Ma Wang Road, Wang Tat Road, Yuen Long On Lok Road and Fung Chi Road)
- Watermain laying
- ABWF E&M work
- Modification works at Chun Yin Garden

No construction activity was undertaken during restricted hours in [May 2003](#):

3.2 EPD PERMITS/LICENCES

Appendix H summarizes the Environmental Licences and Construction Noise Permits (CNPs) for the Project.

3.3 ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

The schedule for implementation of the construction phase mitigation measures (EMIS) is presented in Appendix D.

4. MONITORING RESULTS

4.1 AIR QUALITY

Results of 24-hours TSP level are shown in Table 4.1. Detailed results, including weather conditions and the graphical presentations are included in Appendix A.

Location	Action level ($\mu\text{g}/\text{m}^3$)	Limit level ($\mu\text{g}/\text{m}^3$)	Date	TSP (24hr) ($\mu\text{g}/\text{m}^3$)
Ying Lung Wai (12/9)	194	260	6-May-03	113.19
			13-May-03	119.36
			20-May-03	141.57
			27-May-03	127.59
Sun Yuen Long Centre (12/13)	189	260	6-May-03	57.36
			13-May-03	70.23
			20-May-03	64.39
			27-May-03	55.82
Shung Tak School (12/15)	192	260	6-May-03	109.91
			13-May-03	131.44
			20-May-03	123.66
			27-May-03	102.99
Cheong Wai Mansion (12/19)	200	260	6-May-03	60.57
			13-May-03	79.68
			20-May-03	82.02
			27-May-03	67.37
Long Ping Estate - Hor Ping House (13/57)	200	260	6-May-03	88.72
			13-May-03	97.23
			20-May-03	107.91
			27-May-03	96.91

Note: Cell shaded represents an exceedance of Action Level; cell shaded with thicker represents an exceedance of Limit Level.

Table 4.1 Results of Air Quality Impact Monitoring

No exceedance of action / limit level was recorded during the reporting month, indicating that the construction activities undertaken in May 2003 were in full compliance with the air quality criteria for the Project.

4.2 NOISE

Results of measured noise level are shown in Table 4.2. Detailed data, including weather conditions, monitoring time and graphical presentations are included in Appendix B. A facade correction of 3dB(A) have been applied to measurements carried out under free field conditions. It should be noted that the monitoring location 12/C2, Proposed CDA Development in Yuen Long Area, has been temporary suspended with KCRC's agreement.

Location	Date	Limit Level dB(A)	Average Impact noise measurement (30 min.) dB(A)		
			L _{eq}	L ₁₀	L ₉₀
Ying Lung Wai (12/9)	7-May-2003	75	61.6	63.3	58.9
	14-May-2003		60.7	62.6	59.0
	21-May-2003		61.1	62.2	59.7
	28-May-2003		61.7	63.9	59.0
Tung Tau Tsuen (12/11)	2-May-2003	75	59.7	61.1	56.2
	9-May-2003		60.3	62.5	56.9
	16-May-2003		59.2	62.4	56.4
	23-May-2003		59.5	62.3	55.6
	30-May-2003		60.9	63.5	57.6
Sun Yuen Long Centre (12/13)*	7-May-2003	75	68.7	71.6	63.7
	14-May-2003		68.7	70.5	62.0
	21-May-2003		62.5	64.5	59.9
	28-May-2003		66.2	38.0	62.6
Shung Tak School (12/15)*	7-May-2003	80/75	71.2	74.7	66.4
	14-May-2003		71.8	75.2	68.6
	21-May-2003		69.8	72.9	67.7
	28-May-2003		68.4	70.4	64.8
Cheong Wai Mansion (12/19)	7-May-2003	75	66.4	68.2	63.0
	14-May-2003		66.0	68.9	62.0
	21-May-2003		66.9	66.4	64.7
	28-May-2003		65.4	67.9	59.7
Tai Kiu Tsuen (12/47)	7-May-2003	75	62.7	66.1	58.9
	14-May-2003		60.9	63.0	59.0
	21-May-2003		65.0	68.1	59.3
	28-May-2003		64.4	67.9	59.1
Yuen Long Chun Kwong School (13/50)	6-May-2003	80	57.4	58.6	53.7
	13-May-2003		65.1	67.2	61.1
	20-May-2003		61.3	64.4	53.8
	27-May-2003		64.1	66.0	58.6
Pok Oi Hospital Leung Sing Tak School (13/53)	2-May-2003	80	64.0	65.8	59.6
	9-May-2003		65.4	67.6	60.4
	16-May-2003		66.2	67.9	60.5
	23-May-2003		63.4	65.5	58.1
	30-May-2003		65.0	67.9	60.6
Long Ping Estate - Ho Ping House (13/57)	7-May-2003	75	67.1	69.8	64.7
	14-May-2003		62.8	65.0	58.5
	21-May-2003		65.1	66.5	63.7
	28-May-2003		67.1	69.4	62.2
Fu Loy Garden (13/58)*	2-May-2003	75	69.9	72.6	64.3
	9-May-2003		72.4	74.9	67.4
	16-May-2003		70.8	73.9	65.0

Location	Date	Limit Level dB(A)	Average Impact noise measurement (30 min.) dB(A)		
			L _{eq}	L ₁₀	L ₉₀
	23-May-2003		70.6	72.8	66.4
	30-May-2003		69.9	71.7	67.2

Note:

- * Measurements undertaken at free field condition and a facade correction of 3dB(A) has been applied.
The construction noise limit for schools with noise insulation is 80dB(A) during normal term time and 75dB(A) during examination period.
Cell shaded with a thicker border represents exceedance of Limit Level

Table 4.2 Results of Noise Impact Monitoring During Non-Restricted Hour

No exceedance of limit level was recorded during non-restricted hours in the reporting month. However, two noise complaints were received that was counted as action level exceedances of noise criteria.

4.3 WATER QUALITY

Table 4.3 shows the Action and Limit Levels for impact station D6. The monitoring results are shown in Table 4.4. It should be noted that station U6A, U6B and U6C are the upstream control stations. Detailed results and graphical presentations are included in Appendix C.

Station No.	Action Level			Limit Level		
	SS (mg/l)	DO (mg/l)	Turbidity (NTU)	SS (mg/l)	DO (mg/l)	Turbidity (NTU)
D6	148 and 120% of upstream control stations	1.3	165 and 120% of upstream control stations	174 and 130% of upstream control stations	0.93	188.3 and 130% of upstream control stations

Note For SS and Turbidity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits
For DO, non-compliance of the water quality limits occurs when monitoring results is lower than the limits.

Table 4.3 Action and Limit Levels for Water Quality Monitoring at D6

Date	DO(mg/L)			Turbidity(NTU)			SS(mg/L)		
	Action Level	Limit Level	Measured	Action Level*	Limit Level*	Measured	Action Level*	Limit Level*	Measured
2-May-03	1.3	0.93	2.75	165/ 108	188/ 117	40.0	148/ 86.0	174/ 94.0	65
5-May-03	1.3	0.93	3.10	165/ 180	188/ 196	152.5	148/ 154	174/ 166	169
7-May-03	1.3	0.93	2.35	165/ 126	188/ 137	81.6	148/ 74.0	174/ 81.0	83
9-May-03	1.3	0.93	3.35	165/ 158	188/ 171	55.7	148/ 56.0	174/ 61.0	22
12-May-03	1.3	0.93	3.05	165/ 86.0	188/ 94.0	80.3	148/ 37.0	174/ 40.0	36
14-May-03	1.3	0.93	3.25	165/ 204	188/ 221	54.2	148/ 168	174/ 182	50
16-May-03	1.3	0.93	2.85	165/ 108	188/ 116	46.0	148/ 56.0	174/ 61.0	64
19-May-03	1.3	0.93	2.75	165/ 78.0	188/ 85.0	41.0	148/ 71.0	174/ 77.0	<5
21-May-03	1.3	0.93	1.59	165/ 47.0	188/ 51.0	33.7	148/ 49.0	174/ 53.0	19
23-May-03	1.3	0.93	1.86	165/ 51.0	188/ 56.0	22.3	148/ 41.0	174/ 44.0	15
26-May-03	1.3	0.93	2.60	165/ 69.0	188/ 74.0	76.9	148/ 68.0	174/ 74.0	27

28-May-03	1.3	0.93	1.86	165/ 70.0	188/ 76.0	82.9	148/ 16.0	174/ 17.0	45
30-May-03	1.3	0.93	2.04	165/ 55.3	188/ 59.9	71.0	148/ 61.0	174/ 66.0	31

Note:

* The first value represents Action/Limit Level obtained from baseline monitoring; the second value represents Action/Limit Levels derived from upstream control stations.

All measurement are carried out at one depth only, mid-depth.

Analysis of SS is carried out by ETS Testconsult Ltd which is a HOKLAS accredited laboratory.

N/A - Monitoring cancelled due to public holiday.

Cell shaded represents an exceedance of Action Level; cell shaded with a thicker border represents an exceedance of Limit.

(1) Monitoring cancelled due to public holiday.

Table 4.4 Results for Water Quality Impact Monitoring for D6

Except on 5 May 2003, no water sample was collected at monitoring location U6B throughout the reporting month due to shallow depth. Action level exceedance for Suspended Solid (SS) level was recorded at D6 on 5 May 2003. According to the CET field observation, the high level SS was due to channel cleaning (carried out by DSD) at the upstream of monitoring location D6.

4.4 SUMMARY OF EXCEEDANCES

A summary table of exceedances for the air quality, noise and water quality impact monitoring is shown in Table 4.5.

Exceedance	Total no. of measurement	Action Level Exceedance	% of Action Level Exceedance	Limit Level Exceedance	% of Limit Level Exceedance
Air Quality	20	0	0%	0	0%
Noise					
Non-Restricted Hour	43	0	N/A	0	0%
Water Quality					
DO	13	1	7.7%	0	0%
Turbidity	13	0	0%	0	0%
SS	13	0	0%	0	0%

Note: "N/A" - no action level for noise monitoring relates to number of documented complaints received.

Table 4.5 Summary of Exceedances

No Notice of Exceedances was received during the reporting month.

5. NONCOMPLIANCE AND DEFICIENCY

5.1 SITE INSPECTION/AUDIT BY CET

The CET site inspection/audit was carried out on 20 May 2003, at Yuen Long and Long Ping station sites. Observations included uncovered stockpile at site area near Wong Uk Tsuen, no provision of watering for concrete breaking at eastern side of Sun Yuen Long Centre and no provision of drip tray for onsite storage of oil drums.

5.2 SITE AUDIT BY IEC

Site audit was undertaken by the IEC on 23 May 2003. No Non-Compliance (NC) was issued by IEC. A copy of the site audit checklist is presented in Appendix J. Observations and recommendations are summarised as below.

Long Ping

- Following up the previous audit, most of the manholes were covered.

Yuen Long

- The site entrance near Wong Uk Tsuen was observed dry with mud trails. The Contractor was reminded to wet and clean the paved site entrance regularly.

6. WASTE MANAGEMENT

The materials being disposed off site during the reporting period are summarised in Table 6.1 below.

Area	Brief Description	Disposal Company	Disposal Location	Total (L/T/m ³)
Yuen Long and Long Ping	Chemical Toilet Disposal	ISS	Piller Point Station	33,000 L
Yuen Long Site Office & RE Office	Septic Tank Disposal	Union Service	Piller Point Station	Nil
Yuen Long	Waste Oil	Kwun Kee	Tsing Yi	600 L
Yuen Long and Long Ping	CDG, Rock, Mud	Tai Cheng	Tuen Mun Area 38	865 m ³
Yuen Long and Long Ping	Office Waste	AHKJV	WENT Landfill	376.44 T
Yuen Long Station Course	Chemical Toilet Disposal	Union Service	Piller Point Station	15,600 L

Table 6.1 Summary of Material Disposed Off Site for May 2003

7. COMPLAINT

Two constructional noise related complaints were received respectively at the end of April 2003 and May 2003. The first complaint was regarding noise generated from Yuen Long Station overnight on 28 April 2003. It was suspected that the noise was caused by overnight speaker testing in the station. Since the noise was not related to construction activity undertaken by the Contractor, this complaint was transferred to the RSS of West Rail to follow up. The second complaint was regarding grinding noise generated from construction site near Long Ping Station during night time from 10 May 2003 to 12 May 2003. However, The Contractor had confirmed that no construction activity was being carried out during that foresaid periods.

Complaints log is presented in Appendix E.

8. SUMMARY OF NOTIFICATION OF SUMMONS, SUCCESSFUL PROSECUTIONS AND CORRECTIVE ACTIONS

No Notification of Summons was received during the reporting month. There was a court hearing at Fanling Court No.4 on 15 May 2003 and 16 May 2003 for Summons No. FLS6993/2002 (breaches of Cap. 400 Noise Control Ordinance on 30 July 2002) and next hearing is arranged on 10 June 2003.

Summaries of Notification of Summon and Status of this project are presented in Appendix K.

9. FUTURE KEY ISSUES

The construction activities for the upcoming three months will be very similar to those in this reporting month and therefore, with the implementation of the corrective measures, no significant environment impact is expected.

The monitoring events will be the same as for this month. The methodology for air quality, noise and water quality monitoring is provided in Sections 2.1.2, 2.2.2, and 2.3.2 of this report respectively.

The civil works at Long Ping Station have been completed and the remaining works are the E&M works inside the station and minor road works to the north of the station. It is considered that the E&M works will not cause any dust impact to the surrounding receivers. Termination of air quality monitoring at location Chung Kwong School (13/50) and Tai Kiu Tsuen (12/47) has been approved by EPD, with effect from 1 April 2003, and endorsed by the KCRC and the Engineer. The approval letters of termination of the aforesaid monitoring from EPD is included in Appendix M.

10. CONCLUSION

No exceedance was recorded for air quality in May 2003.

Two noise action level exceedances regarding noise complaints were recorded.

One SS action level exceedance was recorded and which was caused by channel cleaning work undertaken by DSD.

No NOE for the May 2003 exceedance was received during the reporting month.

The IEC site audit and CET site inspection were carried out on 23 and 20 May 2003 respectively. No notice of Non-Compliance (NC) was received.

865 m³ of inert waste included CDG, rock & mud, 376.44 tonnes of general refuse, 600 Litres of waste oil and 48,600 Litres of chemical toilet waste were disposed offsite during the reporting month.

Two constructional noise related complaints were received respectively at the end of April 2003 and May 2003. The complaints were considered not to be caused by the Contractor's construction work.

No Notification of Summons was received during the reporting month.

APPENDIX D - ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
Noise Impacts					
Use of quiet plant and silenced equipment if available.	Piling	All work area	From Oct. 1999 to Oct. 2000 particularly during school examination period	West Rail Environmental Impact Assessment (West Rail EIA) JV Quality Assurance Manager (QAM)	Currently being implemented on site
Use of movable noise barrier when an exceedance of noise criteria is anticipated. (For example area noise sources such as plant/crane engines)	Piling	All work area	From Oct. 1999 to Oct. 2000 particularly during school examination period	West Rail EIA QAM	Currently being implemented on site
Reduce number of plant operating simultaneously close to NSRs	Piling	All work area	From Oct. 1999 to Oct. 2000 particularly during school examination period	West Rail EIA QAM	Currently being implemented on site
Limiting the on-time period or number of items of noisy plant operating at one time. (It is suggesting the number of mixer lorries within each work site should be limited to one, with a movable barrier at the loading and unloading area during pile cap and column construction.)	Piling	All work area	From Oct. 99 to Oct. 2000 particularly during school examination period	West Rail EIA QAM	Currently being implemented on site
<p>Good site practices include:</p> <ul style="list-style-type: none"> a) Operation of only well maintained plant on-site; b) Regular servicing of plant during construction; c) Restriction of rock drilling to the shortest period possible; d) Use of and maintenance of silencers or mufflers on construction equipment during construction; e) Sitting of mobile plant as far away from NSRs as possible; f) Shut down of machines and plant that may be intermittently used between work periods or failing that, equipment shall be throttled down to a minimum; and g) Orientation of plant known to emit noise strongly in one direction such that the noise is directed away from nearby Srs. 	All construction activities involving PME	All work area	Throughout construction phase	West Rail EIA QAM	Currently being implemented on site

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
Air Quality Impacts					
i) Site boundary and entrance (a) Where a site boundary adjoins a road, street, service land or other area accessible to the public, hoarding not less than 2.4 m high from ground level will be provided along the entire length of that portion of the site boundary except for a site entrance or exit. (b) Wheel washing facilities including high pressure jets are provided to prevent dusty material from being carried off-site on vehicles and deposited on public roads. Wash-water shall have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of wheel wash operations. Area at which vehicle washing takes place and the section of road between the washing facilities and the exit point is paved with concrete, bituminous or hard-core material.	All construction activities	Site boundary Site entrance	Throughout the construction period	Part III item 13 of the Air Pollution Control (Construction Dust) Regulation West Rail EIA QAM Air Pollution Control (Construction Dust)	Currently being implemented on site
ii) Cement Storage and Handling (a) Every stock of more than 20 bags of cement shall be covered entirely by impervious sheeting of placed in an area sheltered on the top and the 3 sides. (b) Cement delivered in bulk shall be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line such that, in the event of the silo approaching an overfilling stops with one minute. © Silos used for the storage of cement shall not be overfilled. (d) any cement during and after de-bagging process, shall be carried out in a totally enclosed system or facility, and vent or exhaust shall be fitted with an effective fabric filter or equivalent air pollution control system or equipment.	Cement Storage and handling	Storage Area	Throughout the construction period	Part III item 15 of the Air Pollution Control (Construction Dust) Regulation QAM	Currently being implemented on site
ii) Access haul roads All haul roads of vehicles shall be paved with concrete, bituminous hard-core materials or metal plates, and kept clear of dusty materials. The Contractor shall spray all roads within the construction sites and roads leading to the sites using water browsers with spray bars, hose pipes etc. to control dust.	Vehicles movement on haul roads	At all haul roads	Throughout the construction phase.	Part III item 14 of the Air Pollution Control (Construction Dust) Regulation QAM	Currently being implemented on site

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
<p>iii) Exposed earth</p> <p>To minimise dust emissions, the amount of spoil exposed and the dust generation potential shall be kept as low as possible, this can be accomplished by surface compaction, temporary fabric covers, minimising the extent of exposed soil and the prompt re-vegetation or hydroseeding of completed earthworks.</p>	Construction activities involve excavation	All Work Sites	Throughout the construction phase.	Part III item 16 of the Air Pollution Control (Construction Dust) Regulation West Rail EIA QAM	Currently being implemented on site
<p>iv) Stockpiles</p> <p>Cover entirely by impervious sheeting, placed in an area sheltered on the top and the three sides; or</p> <p>The entire surface is kept wet by applying water spraying or dust suppression chemical.</p>	Construction activities involve stockpiling	At all stockpiles	Throughout the construction phase.	Part IV item 18 of the Air Pollution Control (Construction Dust) Regulation QAM	as when necessary
<p>v) Loading, unloading or transfer of dusty materials</p> <p>All dusty materials are sprayed with water immediately before their handling.</p>	Loading, unloading or transfer dusty materials	Across the site where loading and unloading activities are being carried out	Throughout the construction phase.	West Rail EIA In-Charge Site Engineer QAM	as when necessary
<p>vi) If Conveyor belts are used</p> <p>Conveyor belts shall be fitted with wind-boards, and conveyor transfer points and hopper discharge areas shall be enclosed to minimise dust emission. All conveyors carrying materials that have the potential to create dust shall be totally enclosed and fitted with belt cleaners.</p> <p>Where dusty materials are being discharged to vehicles from a conveying system at a fixed transfer point, a three-sided roofed enclosure with a flexible curtain across the entry shall be provided. Exhaust fans shall be provided for this enclosure and vented to a suitable fabric filter system.</p>	Material transportation using conveyer belt	Conveyor Belt System at the Batching Plant	Throughout the construction phase.	Part III item 20 of the Air Pollution Control (Construction Dust) Regulation QAM <i>Applicable only to the batching plant</i>	completed
<p>vii) Debris handling</p> <p>Materials having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin in good condition. The tarpaulin shall be properly secured and shall extend at least 300 mm over the edges of the side and tailboards.</p> <p>The debris shall be kept wet by water spray prior to dumping into a chute.</p>	Debris handling	Locations where debris handling is being carried out	During debris throughout the construction phase	West Rail EIA QAM	Currently being implemented on site
<p>viii) Site clearance</p> <p>During breaking/crushing or demolition works, watering shall</p>	Site Clearance	Location where site clearance is needed	From Aug. 99 to Jan. 00	QAM	Currently being implemented on site

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
be implemented to control dust. All demolished items shall be covered or placed in area with shelter within a day of demolition.					
The Contractor shall also ensure the following site practices are implemented: a) Open burning of debris, construction wastes, vegetation or other materials on the site is prohibited. b) Dust nuisance is prevented at all times. c) All vehicles have their engines turned off while parked on the site.	Miscellaneous	All site areas and throughout construction phase.	Throughout the construction phase	Air Pollution Control (Open Burning) Regulation QAM	Currently being implemented on site
Vehicle movements to be restricted to 10 -15 km per hour. Speed limit sign will be displayed on site. This regulation will also be mentioned in the Environmental Awareness Training. It will be monitored during the Site Inspection.	Vehicle Movement	All roads within, and leading to, the Site during construction phase.	Throughout the construction phase	QAM	Currently being implemented on site
Water Quality Impacts					
Minimise exposed soil areas to reduce the potential for increased siltation, contamination of runoff and erosion. Slopes and open stockpiles of construction material will be covered with tarpaulin or similar fabric to minimise siltation impacts arising. Construction runoff impacts associated with above ground construction activities can be readily controlled through the use of appropriate mitigation measures which include: (i) The use of sediment traps; and (ii) Adequate maintenance of drainage systems to prevent flooding and overflow.	Excavation, stockpiling	All exposed soil areas which exist or may arise	Throughout the construction phase. Ensure these measures be provided before the arrival of rainy season.	Item 7 of the ProPECC Note PN 1/94 on Construction Drainage West Rail EIA QAM ProPECC Note PN 1/94 on <i>Construction Site Drainage</i>	Currently being implemented on site
The boundaries of critical areas of earthworks will be marked and surrounded by dykes or embankments for flood protection. Temporary ditches will be provided to facilitate runoff discharge into appropriate watercourses, via a silt retention pond. Permanent drainage channels will incorporate sediment basins or traps and baffles to enhance deposition rates.	Excavation, stockpiling	All critical areas of earthworks	Throughout the construction phase. Ensure these measures be provided before the arrival of rainy season.	West Rail EIA QAM	Currently being implemented on site
All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge will be adequately designed for the controlled release of storm flows.	Drainage diversion	Design prior to construction and install immediately on	Throughout construction phase.	West Rail EIA QAM	Currently being implemented on site

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
All sediment traps will be regularly cleaned and maintained. The temporarily diverted drainage will be reinstated to its original condition when the construction work has finished or the temporary diversion is no longer required.		start of construction programme.			
Sand and silt in wash water from wheel washing facilities will be settled out and removed before discharge into storm drains. A section of the road between the wheel washing bay and public road will be paved with backfill to prevent wash water or other site runoff from entering public road drains.	Wheel washing operation	All wheel washing facilities at all entrances / exits at the Site.	Throughout entire construction phase.	Item 15 of the ProPECC PN 1/94 Part III item 13 of the Air Pollution Control (Construction Dust) Regulation West Rail EIA QAM	Currently being implemented on site
Collection, handling and disposal of debris and rubbish to avoid water quality impacts.	Debris and rubbish handling	Entire construction site	Throughout the construction phase	Chapter 358 Part III of item 8 of the Water Pollution Control Ordinance (WPCO) West Rail EIA QAM Water Pollution Control Ordinance (WPCO)	Currently being implemented on site
All fuel tanks / storage areas to be bunded (to 110% capacity of maximum storage area) and cited in sealed areas and locked at all times in order to prevent fuel from tanks and storage areas entering water bodies.	Fuel Storage	Fuel storage area	Throughout construction phase.	West Rail EIA QAM	Currently being implemented on site
Provision of portable chemical toilets or septic/soakaway tanks which will be cleaned and emptied for disposal regularly by a licensed contractor as necessary.	Sewage generated from the construction work force	Portable chemical toilets or septic/soakaway tanks	Throughout construction phase.	Chapter 358 Part III of item 9 of the WPCO Chapter 354 Part III item 9 of the WDO Item 23 of the ProPECC PN 1/94 West Rail EIA QAM WPCO and Waste Disposal Ordinance	Currently being implemented on site
Visual / Landscape Impacts					
Control of night-time lighting	Construction activities during night-time	Wherever spot lights are positioned	Throughout construction phase.	West Rail EIA	as when necessary

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
				QAM	
Advance planting for screening		Around Site boundary; wherever practicable	Throughout construction phase.	West Rail EIA QAM	N/A
Minimising height of temporary structures		Wherever practicable	Throughout construction phase.	West Rail EIA QAM	N/A
Careful positioning of construction plant		Particularly in conspicuous areas and near large or well used areas by the Site.	Throughout construction phase.	West Rail EIA QAM	Currently being implemented on site
Waste Management Impacts					
All waste management related activities will be undertaken in accordance with the Waste Management Plan for this contract.			Throughout the contract.	As noted in the WMP West Rail EIA QAM	Currently being implemented on site
Completion and submission of FMC questionnaire on <i>Surplus and Fill Requirements</i> to encourage re-use of excess excavated material by other land formation / reclamation projects.	Excavated material handling and disposal		Prior to start of construction works Throughout the contract.	QAM	N/A
Construction waste materials shall be separated into inert, non-inert and chemical waste categories: i) Inert waste will be reuse as for as possible, and the surplus suitable for reclamation / land formation shall be disposed of at a public dumping site; ii) Unsuitable inert material and non-inert material shall be disposed of at landfill; and iii) Chemical waste under Schedule 1 of the Regulation shall be stored according to the Regulation, and shall be disposed of at the Tsing Yi CWTF or another location determined by Government. iv) Contaminated excavated material (please refer to Contamination Action Plan)	All construction activities	At all locations	Throughout the construction phase	Chapter 354 Part IV item 16 of the WDO Sections 4.6 and 4.6 of the Code of Practice on the Packaging, Labelling and storage of Chemical Waste under Chapter 354 section 35 of the WDO QAM	Currently being implemented on site
Wastes shall be stored and handled in dedicated areas with bunded sides such a way as to avoid loss or leakage and subsequent pollution. Waste storage sites shall be approved	Waste handling and disposal	For all areas on site	Throughout construction phase	Part III items 9, 10 and 11 of the Waste Disposal Ordinance	Currently being implemented on site

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
by the Engineer and shall be located away from sensitive areas such as: residential, surface/groundwater or coastal areas. Designated waste storage areas shall be well maintained and cleaned regularly.				QAM	
The environmental monitoring shall include trip ticket usage to ensure proper disposal and avoidance of fly tipping.	Waste disposal procedures	For all waste disposal off-site.	Throughout construction phase	Chapter 354 Part IV item 16 of the WDO QAM Waste Disposal Ordinance	Currently being implemented on site
Permitted waste hauliers will be used to collect and transport wastes to the appropriate disposal points. The following measures to minimise adverse impacts will be instigated: i) Use waste hauliers authorised or licensed to collect the specific category of waste; ii) Remove wastes as required; iii) Maintain and clean waste storage areas daily; iv) Minimise windblown litter and dust during transportation by either covering tucks or transporting wastes in enclosed containers; v) Obtain the necessary waste disposal permits from the appropriate authorities, in accordance with the; vi) Dispose of waste at licensed sites; vii) Develop procedures such as a ticketing system to facilitate tracking of loads, particularly for chemical waste, and to ensure that illegal disposal of wastes dose not occur; and viii) Maintain records of the quantities of wastes generated, recycled and disposed.	Waste disposal procedures	For all areas on site.	Throughout construction phase	Chapter 354 Part III of the WDO West Rail EIA QAM Waste Disposal	Currently being implemented on site
During the excavation process should any material be found or suspected to be contaminated the following will be followed: • Inspection of material and visually confirmation of potential contamination. • Sampling and analysis specialist material for disposal options. Excavation works will be supervised at all times by an environmental / contamination specialist.	Excavation, excavated material handling	Work sites where excavation is being carried out	Throughout the construction phase	Items 9, 10 and 11 of the ProPECC Note PN 3-94 Contaminated Land Assessment and Remediation QAM	Currently being implemented on site

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
Careful planning and good site management to minimise over-ordering and waste of materials such as concrete, mortars and cement grouts. The design of formwork should maximise the use of standard wooden panels so that high reuse level can be achieved. Alternatives such as steel formwork or plastic fencing should be considered to increase the potential for reuse.	Formwork construction	All Site areas	Throughout the construction phase	Item 5 of the Works Branch Technical Circular No. 32/92 QAM	Currently being implemented on site
Recycle as much as possible of the construction waste on-site. Proper segregation of wastes on site will increase the feasibility of recycling certain components of the waste stream. Concrete and masonry can be used as general fill and steel reinforcement bar can be used by scrap steel mills. Different areas shall be designated for such segregation and storage wherever site conditions permit.	Waste management	All Site areas	Throughout the construction phase	West Rail EIA QAM	Currently being implemented on site
Chemical waste that is produced, as defined by Schedule 1 of the Regulation, shall be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes	Chemical waste storage	Wherever chemical waste is produced during construction	Throughout the construction phase	Sections 4.2 and 4.6 of the Code of Practice on the Packaging, Labelling and storage of Chemical Wastes under Chapter 354 of the WDO West Rail EIA QAM.	Currently being implemented on site
General refuse generated on-site will be stored in enclosed bins or compaction units separate from construction and chemical wastes. A licensed waste collector will be employed by the JV to remove general refuse from the site, separately from construction and chemical wastes, on a daily or every other day basis to minimise odour, pest and litter impacts. The burning of refuse on construction sites is prohibited by law and will be strictly enforced.	Waste storage and disposal	All work sites	Throughout the construction phase	Par III items 9, 10 and 11 of the WDO QAM Waste Disposal Ordinance	Currently being implemented on site
Office wastes can be reduced through recycling paper. The JV will participate in a local collection scheme if it is available.	Waste storage and disposal	All work sites	Throughout the construction phase	West Rail EIA QAM Waste Disposal Ordinance	Currently being implemented on site
Nuisance Impacts					
The Contractor shall be responsible for ensuring that no earth, rock or debris will be deposited on public or private	All construction activities	At public and private rights of way	Throughout the construction	Chapter 28 of the Crown Land Ordinance	Currently being implemented on site

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
properties as a result of construction activities which include any deposits arising from the movement of Construction Plant or vehicles.				Land Ordinance QAM	
The Contractor shall at all times ensure that all existing stream courses and drains within, and adjacent to, the Site are kept safe and free from any debris and any excavated materials arising from the Works.	All construction activities	All existing stream courses / drains within, and adjacent to the Site.	Throughout construction phase.	EIA Ordinance Chapter 358 of Part III item 9 of the WPCO Crown Land Ordinance QAM	Currently being implemented on site
Site hoarding shall be constructed of re-usable materials to avoid detrimental impact on the environment.	All construction activities	At site boundaries.	Throughout construction phase.	EIA Ordinance QAM	N/A
Use of tropical hardwoods on-site is prohibited. Project Quality and Environmental Manager is responsible for ensuring that no tropical hardwoods will be used by JV. The construction manager will ensure that the sub-contract or will not use the hardwood. This measure is in accordance with the Works Bureau Technical Circular No. (WBTC) No. 32/92 entitled "The use of Tropical Hardwood on Construction Sites."	Scaffolding, wood works	Locations where scaffolding, wood works are being carried out.	Throughout construction phase.	EIA Ordinance Items 4 & 5 of the WBTC No. 32/92 QAM	N/A
The Contractor will try to avoid transporting materials and equipment during peak hours 07:00 to 09:00 and 17:00 to 19:00 to avoid aggravating conditions on local roads.	Material transportation	Throughout the construction phase.		EIA Ordinance QAM	Currently being implemented on site

APPENDIX E COMPLAINTS LOG

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
8/4/2000	Mr Chan	WR/C/200004-00029 WR1CRN2000-0069979 00-C0020	Vibration during sheet piling	The Contractor checked the vibration reading and nothing found. The Contractor instructed the operator of the vibrator to stop the work if hard materials is hit. Mr Chan accepted.	10/4/2000
12/5/2000	Mr Suen	WR/C/200005-00014 WR1CRN2000-0081914 00-C0034	Mud and dust generated from site at Tai Kiu Tsuen onto On Lok Street	Cleaning of the road is in progress Sub-contractor or driver should avoid carrying mud to the street	19/5/2000
12/5/2000	Ms Ng	WR/C/200004-00139 00-C0035	Flying dust from site Park of Fu Loy Garden	- Hoarding has been erected	12/5/2000 at 15:45
12/5/2000	Mr Wu and Mr Kwong	WR/C/200005-00022 WR1CRN2000-0082257 00-C0037	Noise generated when people walk on the footbridge at Long Ping Station, especially at night	- Noise survey done a 15/5/2000 by the Contractor and on 16/5/00 witness by KCRC	Written reply on 20/5/2000
16/5/2000	Reported by Ms Wu	WR1/C/200004-00209 WR1CRN2000-0078443 00-C0039	Dust generated by the construction work near Fu Loy Garden	Hoarding has been erected -	Written reply on 19/5/2000
21/6/00	Mr Choi Tse Loi and Mr Wong Kai Cho	WR/C/200006-00105 WR1CRN2000-0117118 00-C0063	Dirty water and long grass in front of Tai Wai Tsuen	Investigation has been carried out by the Contractor and a meeting with the local resident was held on 30/6/00. The RE will inform KCRC to sort out the problem. RE will inform KCRC about the complaints and will sort out what action need to be taken.	Action undertaken from 21/7/00 to 26/7/00
07/7/00	Mr. Lee	WR/C/200007-00002 WR1CRN2000-0066867 00-C0070	The construction site from Sun Yuen Long Centre to the highway were muddy and dusty.	The Contractor has contacted Mr Lee and they will try to improve the situation.	8/7/00 at 14:50

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
7/7/00	Mr.Cheung	WR/C/200007-00010 WR1CRN2000-0066867 00-C0071	Report dust flying throughout the Long Yat Rd. near the Sun Yuen Long Centre. Water spraying once a day in the early morning is insufficient.	The problem may be due to the TDD job in which their truck enter the site without wheel wash. The contractor has reminded the TDD staff.	
11/7/00	DO- Mr. Lee (DO to Hy to WR)	WR/C/200007-00023 WR1CRN2000-0125674 00-C0074	Construction work during night time after 23:00 disturbing the villagers of Nam Bin Wai.	Notice has been issued from the contractor to the villagers, regarding the concrete works. Valid CNP also held by the contractor. Inspection was conducted by EPD and the Contractor on 5 May 2000, between 1745-2015, and noise monitoring was conducted by EPD and the result was acceptable. Contractor have provided a direct Tel. No. to the complainant for future contact.	13/7/00
24/7/00	Gary (KCRC) and Mr. Cheung	WR/C/200007-00102 WR1CRN2000-0144198 00-C0077	Unknown odour produced by the machine such as pump and pre-drilling, and air pollution due to dust generating.	Installing of tarpaulin cover to the pump to prevent unknown odour spreading outside the site. Increase the frequency of spraying water to the road to reduce dust generating. The situation has been improved.	25/7/00 at 09:50
17/7/00	Mr. Lai	WR/C/200007-00040 WR1CRN2000-0131235 00-C0078	Mud and dust were produced by the construction vehicles from the WR site at Long Yat Rd. Spraying water once a day in the morning is inadequate.	Increase the frequency of water spraying in Long Yat Road.	
26/7/00	Mr. Franeis S.K.Ho (Senior Property of Facility Manager for Kai Shing management Ltd.)	WR/C/200007-00082 WR1CRN2000-0142582 00-C0081	Request to improve the environmental condition of Long Yat Road.	The frequency of water spraying has been increased.	
24/8/00	Mr. Yu	WR/C/200008-00062 WR1CRN2000-0165125 00-C0089	Muddy and dusty road condition were found near the Long Ping temporary footbridge from the Long Ping site.	The road was immediately cleaned up. The complainant was informed from the Contractor that the problem has been rectified and adequate wheel washing will be implemented.	24/8/00 at 15:40

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
11/9/00	Ms Lam – resident of Sun Yuen Long Centre, 13/F, Block 4 (transmitted from RE)	WR/C/200009-00009 WR1CRN2000-0183413 00-C0099	Dark smoke and bad smell are from the site facing Sun Yuen Long Centre.	Investigation has been carried out by the Contractor and found out that actually was the crawler crane generated the smoke. The Contractor informed their sub-contractor and make sure all equipment is proper maintenance.	12/9/00
11/9/00	Mr Anzih (transmitted from RE)	WR/C/200009-00010 WR1CRN2000-0183413 00-C01400	On 5/9/00 at 14:29hour, construction activities Yuen Long site generated loud noise until 22:30 hour.	The Contractor hold a valid CNP (i.e. CNP no. GW-TW0279-00) to carried out the work. However, they will ensure all PME, including Power pack and air compressor must keep inside the site boundary and a noise barrier is provided.	12/9/00
21/9/00	Ms Lee from Shung Tak School	Direct Called	Noise form piling affected their school activity and she had ask to stop carrying out the work until the class is over.	Investigation has been carried out by the Contractor immediately after receiving the complaint. It was found that sheet piling was carried out in from of the school and it has been stop until the class is over.	21/9/00
30/9/00	Mr Chan To Fat on 25/9/00 at 14:24 hour (transmitted from RE)	WR1/C/200009-00084 WR1CRN2000-0195827 00-C0109	Loud noise from piling work generated next to his house at Tai Kiu Tsuen	Investigation has been carried out by the Contractor and 4 nos. of containers were placed as barrier adjacent to house #106 (Mr Chan's house) and the time period for sheet piling was shorten and the work time is from 0900 to 1700 hours agreed by the villagers.	30/9/00
11/10/00	Mr Chan	Direct call from EPD	Complain was receive from Mr Wong in Tai Kiu Tsuen, regarding dust blowing from the site toward his house No. 106.	Temporary tarpaulin fencing will be erected for dust suppression.	N/A

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
23/10/00	EPD	Direct call from EPD Mr Wong on 14:30 on 24/10/00	Construction vehicle carried mud and dust from construction sites to Wang Yip Sai Street near old fish market	Site investigation has been carried out by the Contractor immediately after the complaint was received. It is observed that by the time of inspection, a lorry was washing its wheels at the wheel washing bay. Mud trails are not seen on the road. It was also found that 4 nos. of pre-drilling machine was working at old fish market that is belong to other Contractor. Therefore it is concluded that the mud and dust found at Wang Yip Sai Street near old fish market was not caused by works under CC202.	N/A
30/10/00	Transmit from RE	WR/C/200010-00096 WR1CRN2000-0222095 00-C0126	Mr Tai request West Rail to provide noise monitoring data since lots of complaints was received from the villagers at Nam Bin Wai and Shung Tak School.	Noise monitoring data have been submitted by KCRC and mostly vibration and noise were caused by sheet piling work. However, construction of Box Culvert should be completed. On the other hand, noise can be reduced from RCD drilling, by placing power pack and air compressor inside the enclosure	N/A
No environmental related complaints were received in November 2000					
5/12/00	Transmit from RE Mr Leung, resident at Nam Bin Wai	WR/C/200011-00157 WR1CRN2000-0250806 00-C0136	Dusty condition found at the area near Nam Bin Wai.	The Contractor instructed the forman to water the haul road whenever the road is dry and dusty.	N/A
No complaint was received in January 2001					

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
16/2/01	Transmit from RE Mr Lee Shek Chiu shop owner at Shun Yin Square at Long Ping (received on 2/2/01)	WR/C/200102-00002 WR1CRN2001-0024290 01-C0011	Muddy and dusty condition found at the construction site of CC202 at Chun Yin Square at Long Ping.	A meeting was held on 9/2/01 at 15:00 between the complainant, other shop owners, the Contractor, RE and KCRC. The concerns of the shop owners have been discussed. Corrective actions including minimize amount of stockpiles and cover with tarpaulin sheets.	Meeting held on 9/2/01.
6/3/01	Transmit from RE Mr Siu, resident of Sun Yuen Long Centre on 1/3/01	WR/C/200103-00004 WR1CRN2001-0048168 01-C0023	High noise level generated from the construction works near Sun Yuen Long Centre. He strongly requested the Contractor to measure the noise level in his apartment and compare with EPD standard.	The impact monitoring results indicated the noise levels are below the Limit Level. A visit to the complainant's apartment was made by the Contractor and RE on 12 th March. Noise level was measured in the house no exceedance was recorded. The Contractor informed the sub-contractors to implement preventive measures, including use of movable noise barrier when high noise level is anticipated; place plants as far from the NSRs as possible; and use of quieter plants.	Visit made on 12 th March 2001
14/3/01	Transmit from RE Mr Lam on 7/3/01	WR/C/200103-00029 WR1CRN2001-0053887 01-C0028	High dust level generated from the construction sites adjacent to Chun Yin Square.	Investigation carried out by the Contractor after receiving the complaint. Hoarding erected at the site adjacent to Chun Yin Square. Construction work was not yet started due to re-design. The Contractor has asked the workman to look for the dust source from the site.	N/A
30/3/01	Transmit from RE Ms Lam, resident of Long Ping Estate (on 20/3/01)	WR/C/200103-00063 WR1CRN2001-0067866 01-C0032	Smoke generated by the construction equipment at the site near Long Ping Estate.	Investigation carried out by the Contractor after receiving the complaint. One crane and one hydraulic power pack generated the smoke. The Constructor has instructed the sub-contractor to undertake corrective action. The filter of the equipment was changed and they are moved far away from the sensitive receiver.	N/A

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
10/4/01	Transmit from RE Mr Yip 13:23 (3/4/01)	WR/C/200104-00004 WR1CRN2001-0078397 01-C0034	Mud and dust generated from the construction site on Long Yat Road near Sun Yuen Long Centre.	Investigation carried out by the Contractor after receiving the complaint. A site worker was assigned to follow up the cleaning of Long Yat Road. The frequency of haul road watering will also be increased for dust suppression.	N/A (Mitigation measures are continuously implemented on site.
12/4/01	Transmit from RE Ms Wan 11:17 (3/4/01)	WR/C/200104-0003 WR1CRN2001-0081069 01-C0036	Mud and dust generated from the construction site near Nam Bin Wai. (i.e. from Nam Bin Wai to Long Yat Road and to On Lok Road)	Investigation carried out by the Contractor after receiving the complaint. The frequency of haul road watering will also be increased for dust suppression.	N/A (Mitigation measures are continuously implemented on site.
2/5/01	Transmit from RE Mr Leung 21:20 (21/4/01)	WR/C/200104-00068 WR1CRN2001-0096247 01-C0049	1) Noise generated from WR construction site near Long Ping Station. He complained the piling works near Fu Loy Garden continuing till 9:20pm (21/4). He wonder if the JV have any permit.	1) On 21/4/01 the JV have concrete pouring of large pile at No. A4 till 22:00. We have the current permit and try to reduce the noise.	
2/5/01	Transmit from RE Mr Leung 21:20 (21/4/01)	WR/C/200104-00068 WR1CRN2001-0096247 01-C0049	2) Mosquitoes were found near Fu Loy Garden. The complaint requested the JV to check and see whether there is any stagnant water near work site.	2) Some area may be unlevelled and rain water may be stored, the JV will try their best to clean up.	
22/5/01	Transmit from RE Mr Choi 15:44 (9/5/01)	WR/C/200105-00016 WR1CRN2001-0112099 01-C0054	He is a Yuen Long Villager. He found that once after/during heavy rain, the foot path from Nam Bin Wai to the bus station will be flooded. He urged us to find the solution.	We have noted that there is a flood near the Long Yat Road bus stop after heavy raining. We have provide labour to clean immediately and put the concrete to the location of hoarding and made some small drainage to allow water flows to the site the situation should be improved.	9/5/01

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
22/5/01	Faxed from KCRC. Transmit from RE Ms Wan Fool Environmental Dept Staff 10:11 (21/5/01)	WR/C/200105-00068 WR1CRN2001-0116025 01-C0055	Mud and muddy water flow out under the hoarding from WR site on Long Yat Road. Facing the car park entrance of Sun Yuen Long Centre. Ms Win suggest to place some sound bags to fill the gap between the hoarding grill ground to prevent muddy water flow out to Long Yat Road.	We have noted that some point is low level since we have modify the bus stop a few times in the recently. If the hoarding sometimes damaged by vehicle and caused the hoarding bottom cement broken, so the water will leak from site to low level point, but our labour will go to clean immediately, after two weeks, the Long Yat Road bus stop will be relocate to next of pumping station and that site will become vehicular road.	24/5/01
22/5/01	Faxed from KCRC Transmitted from RE Mr Cheng Resident of Yuen Long 16:15 (21/5/01)	WR/C/200105-00073 WR1CRN2001-0116025 01-C0056	Muddy water generated from WR construction site. The complainant drove along Long Yat Road near Sun Yuen Long Centre + the temp bus stop. Some muddy water dropped on his car. Suspecting dropping from the column nearby. He urged us to solve the problem.	We have no record for this and Mr. Cheng without contact no. therefore we can not investigate. But we still to instruct our workman to take care the safety of pedestrian and vehicle if working at that area.	25/5/01
31/5/01	Transmit from RE Mr Wong 09"10 (22/5/01)	WR/C/200105-00083 WR1CRN2001-0119317 01-C0058	Problem site, an entrance of Yuen Long Station site. The spot is near Wong Uk Tsuen. There is a public toilet and rubbish collection point. There is a drainage and contractor uses a protective net to fence off rubbish shop rubbish entering the site. Contractor used to clean the rubbish regularly but yesterday not done. As a result the accumulated rubbish gives foul smell. Also may cause flooding threat.	Drainage next to Wong Uk Tsuen Road Public toilet. JV have erected the net to fence off the rubbish enter the site during High tide, but low tide, the rubbish also gone with water, and the area should be outside the JV site boundary.	11/6/01

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
11/7/01	Transmit from RE Mr Ching 16:42 (27/06/01) (01-C0070)	WR/C/200106-00076 WR1CRN2001-0152250 01-C0070	Mr. Ching complained that at Ying Lung Wai and Tai Wai Tsuen, flooding always occurred after heavy rainfall. He urged WR to solve the problem.	No contact phone. According to my record, 27/06/01 is a Amber Storm Rain and Red Storm Rain day but no flooding complaint received by me. At 18:00 Choi Uk Tsuen VR. Mr. Choi have called me we have arranged the emergency team on site or not, and said yes. Also he told me his village is not flooding at that time.	
5/10/01	Transmit from RE Mr Ng 4/9/01 09:24	WR/C/200109-00005 01-C0089	Noise is generated on the overnight Construction Work at the site of LOP station, inspecting the residents who lives in Yuet Ping House facing the site. The noise sounds like the workers throwing iron bars.	On 6/9/01 Gary Fu have rang me that relate of this case, after I investigated and reply to him. We haven't night works and in front of Fook Cheung House, just opposite the Yuen Ping House that I heard that another Contractor have dismouth scaffolding at night there, it may be caused.	
5/10/01	Transmit from RE Mr Chan 14/9/01 14:05 Resident of Long Ping Estate	WR/C/200109-00038 WR1CRN2001-0224741 01-C0090	There is a large iron plate and small iron plate placed on the vehicular road under the temporary LOP footbridge is loosen and caused loud noise when vehicles cross over. He urged WR to follow up as soon as possible.	Since Gary Fu informed that I have informed our foreman Mr Poon who house to weld it and no noise produce immediately.	
5/10/01	Transmit from RE Mrs Lam Shopowner of Lam Yuen 25/9/01 14:17	WR/C/200109-00068 WR1CRN2001-0224742 01-C0092	Mrs Lam called and complained that the septic drainage was blocked and wastewater flows all over her food shop. DSD had investigations and tried to pump the septic drainage, but they said the drainage is blocked inside boundary again. She urges us to clear the drainage immediately as she sell food and it costs great business loss to her.	We cannot say who blocked, but I think the urgent job is to pump nearby the septic waste and clean the area we have done. We are still to search the causes but unfortunately the drainage is located below the scaffolding at the CC201 site so we also to wait their viaduct works completed then we can continue to follow up.	

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
5/10/01	Transmit from RE Mr Lai 27/9/01 08:40	WR/C/200109-00074 WR1CRN2001-0224739 01-C0096	Mr Lai complained that his car was damaged when driving through the new Tunnel to Temp L2 road from Long Yat Road as rocks and dirty water with concrete fell on his car around at midnight on 26/09. He found crack on the front glass of the car and damage at the front of his car. He called the police last night and will report this to EPD complaining the construction safety, and urged us to investigate and call him back. He also would like to ask for compensation.	I think Mr Lai is a taxi driver (JZ 5670). He told Mr K K So that he want money. Next day he requested the amount \$24,975. We already pass to our Loss Adjuster who want to contact Mr Lai for inspect the car but refused by Mr Lai as he washed. He also reported to ASD and EPD. They have came to site for investigation respectively. Case have been reported in the SLG meeting to be held on 15/10/01.	
5/10/01	Transmit from RE Mr Ng 24/9/01 17:07	WR/C/200109-00065 WR1CRN2001-0224742 01-C0097	Mr Ng complained the steady drips of dirty water from the iron tunnel on the vehicular access to temp L2 road near Nam Bin Wai happen from around 09:00am on 24/9 and 25/9 2001. Mr Ng stated that private vehicle must pass through the iron tunnel to go out from Nam Bin Wai, but the dirty water causes their cars wet and dirty. Mr Ng urged WR to take proper action to solve the problem as soon as possible.	Since we required this complaint and informed our Foreman should take care and improve the situation. Also our site agent will pay more attention on this area and arrange the prevention measurement.	
5/10/01	Transmit from RE Ms Yip Resident of Wong UK Chuen 20/09/01 13:39	WR/C/200109-00055 WR1CRN2001-0224742 01-C0098	The caller complained that the tall grass at the drainage near public washroom of Wong UK Chuen is not trimmed still after complaining to WR a month ago. She urged us to follow up as soon as possible.	We have carry a joint inspection and the cleaning work is proceeding. See attached record of communication with villagers and photos.	

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
5/10/01	Transmit from RE Mr Tong Resident of Sun Yuen Long Centre 20/9/01 09:19	WR/C/200109-00054 WR1CRN2001-0224742 01-C0099	Mr Tong complained that there is a metal plate not placing well at Long Yat Road when cars passed by, it will generate noise and effect the nearby household at Sun Yuen Long Centre, especially during night time. He urged us to fix it as soon as possible.	Steel plate in Long Yat Road is to protect the manhole, but due to traffic busy and caused the steel plate becomes curve therefore produce the noise. We have to change a 2" thickness steel plate at the night of 10/10/01 and the situation improved. We have verbal informed Mr Tam of Sun Yuen Long Centre management on 11/10/01 morning.	
10/11/01	Transmit from RE Ms Lam Resident of Long Ping Estate 23/10/01:10:08	WR/C/200110-00072 WR1CRN2001-0246822 01-C0107	Ms Lam complaint that noise generated from WR construction site last night call 04:00am (23/10). The location is near Long Ping Estate, opposite to Fu Loy Estate, and next to a discharge there. She wonders if the construction works can work till 4:00am without any permit.	Ms Lam also have rang me that she ask me the site import of Yuet Ping House is still our site or not. I told her that we have had over to viaduct contractor since long ago so I think it may be work at night and also in front of Fook Cheong House. They contract the column with scaffolding. They may be dismouth at night. On 24/10/01, EPD also have arrived site to check and called viaduct contraction on Provide assistance is investigation.	
06/12/01	Transmit from RE Choi Siu Man Reporter of the Sun 03/12/2001 at 11:02 hrs	WR/C/200112-00008 WR1CRN2001-0279681 01-C0117	Referring to Mr Ng's of Chung Hou Village Yuen Long complaint the dust and noise from gravel yard to affecting their living environment.	We have joint inspection with EPD staff on 04/12/2001 and improved the situation EPD accepted KCRC also replied to "The Sun" on 06/12/2001 and we also received fax from "The Sun" on 07/12/2001 and replied on 12/12/2001.	
07/12/01	Mr Tsang Resident of Sun Yuen Long Centre 07/12/2001 at 10:36 hrs	WR/C/200112-00018 WR1CRN2001-0285614 01-C0121	Mr Tsang complained that the middle metal plate of the three recovering construction holes at the corner of the Long Yat Road & Castle Peak Road near the car Park & the bus stop next to Sun Yuen Long Centre cause noise when large vehicle i.e. buses & trucks cross over it as it is lo0sen. He urged us to fix the problem asap.	The steel plates are protected the telephone duct manhole so we cannot weld it. We repaired it by putting some insulate wool at the bottom of steel plate and the situation had been improved and many heavy trucks & bus are using this slow lane. We will pay more attention on this.	

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
14/12/01	Transmit from RE Choi Tsz Loy Villager of Tai Wai Chuen 05/12/2001 at 18:25 hrs	WR/C/200112-00012 WR1CRN2001-0285614 01-C0119	Dust generated by construction vehicle along Ng Wo Road to the inside of site facing Tai Wai Tsuen. The VR & villager strongly requested our contractor to control the dust impact.	We extracted the sheet pile for new temp. road diversion of Ng Wo Road and the truck carried the soil for backfill, our foreman was reminded constantly to water the working area in order to prevent dust flying around.	
16/01/02	Mr Choy Chi-Loy Villager of Tai Wai Tsuen 14/01/02 at 17:20 hrs (02-C0004)	WR/C/200201-00038 WR1CRN2002-0009543 02-C0004	Dust generated from site near the Tai Wai Tsuen's Pai Lau. The VRs complained that the dust impact the villagers health and urged us to solve the dust problem.	Outside the Tai Wai Tsuen We haven't too much work there. Anyway we have instructed our foreman to aware the flying dust due to dry season and strong winds. We will keep close monitoring there.	
16/01/02	Transmit from RE on 18/01/2002 Mr Tsang 16/01/2002 at 13:42 (02-C0005)	WR/C/200201-00047 WR1CRN2002-0013048 02-C0005	Noise was generated when vehicle cross over the metal plates that are placed the junction of Long Yat Road & Castle Peak Road near the temporary car park and Sun Yuen Long Centre. Ha has complained about the same matter two month ago. And he now urged our construction to solve this problem again.	We have repaired on 19/01/02 again so the problem was already solved.	
18/01/02	Transmitted from RE on 18/01/02 Mr Hou Shek Hong SYLC Management (02-C0008)	WR/C/200201-00044 WR1CRN2002-0013048 02-C0008	Mud and dust were generated by WR YUL Station and caused the exterior wall of SYLC and Long Yat Road very dirty.	I contacted Mr Hou on 19/01/02 and made an appointment of joint inspection, but Mr Hou thought that was useless and we would only keep record and would ignore them after the completion of the project. I explained to them that our workmen would inspect the wall and the bound and we would keep cleaning it or repairing it.	
No complaint was received in February 2002.					

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
18/03/02 & 21/03/02	Ms Lam Resident of Long Ping 18/03/02 at 14:57 hrs (02-C0023)	WR/C/200203-00046 WR1CRN2002-0060975 02-C0023	Noise generated from the new footbridge near Long Ping Estate, Ms Lam complained about the construction work noise generated from the permanent LOP footbridge. She would like to know when the works on the footbridge will be completed.	We have 3 more concrete block are scheduled to break and move away. Mr Wong Wai Yin of YLDC has contacted me at 1700 hrs on 19/03/2002 and 10:00 on 20/02/2002 and not recommend us to use hyd. Rock breaker to hammer the rock. Discussed with Mr K L Yip we will try to use pneumatic breaker to break the concrete in Long Ping Estate Car Park Entrance soon. Also I have informed Mr Cheung of Long Ping Estate Manager the planter re-instate programme will be delayed.	Informed to Mr Wilson Wong on 20/03/2002
21/03/02	No Complainant information 18/03/02 at 12:45 hrs (02-C0026)	WR/C/200203-00044 WR1CRN2002-0060975 02-C0026	A complainant called to complete that noise is generated at night when vehicles pass on top of a rocking steel plate under viaduct near the zebra crossing outside Yuet Ping House of Long Ping Estate towards Au Tau.	I received call from Mr Gary Fu of KCRC on 18/03/02 then go to check and found there is no steel plate on the vehicular road outside Yuet Ping House (Wang Tat Road) or Fung Chi Road.	Informed to Mr Gary Fu
13/04/02	Ms Lam Resident of Long Ping Estate 13/04/02 at 09:45 hrs (02-C0037)	WR/C/200204-00052 WR1CRN2002-0089988 02-C0037	Ms Lam complained again that noise generated when vehicle passing on the rocking steel plate outside Hor Ping House of Long Ping Tsuen neat Fu Loy Garden. The noise has lasted for 2-3days and no remedial works were done. She urged our contractors to rectify ASAP.	At 13:30 on 23/04/02, Mr Gary Fu & Mr Wilson Wong of KCRC informed me respectively they received a complaint from Ms Lam that steel plate outside Yuet Ping House in Long Ping produces the noise. I went to check, the steel plate jut put there at Ma Wang Road next to staircase on 22/04/02. I stayed there half hour and found the corner of steel plate insulated by cotton rag. Only minor noise if Long vehicle cross over it. I called our traffic team to improve immediately on 25/04/02 & 26/04/02. Ms Lam also contacted me for this issue. I explained to her that the steel plate on the trench is for safety purpose. Anyway the steel plate was removed always at 14:30pm on 26/04/02.	Informed to Mr Gary Fu & Mr Wilson Wong on 27 April 2002.

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
26/04/02	Ms Lam Resident of Long Ping Estate 22/04/02 at 20:30 hrs (02-C0038)	WR/C/200204-00053 WR1CRN2002-0089988 02-C0038	Steel plates were placed on the road outside Long Ping House (???) & Yip Ping House (???) of Long Ping Estate (Near Fu Loy Garden???) for WR Works. The steel plates were not fastened and so created a lot of noise when vehicle ran over them. The complainant requested the WR Contractor to fasten the steel plates to minimize the noise.	Refer to 02-C0037	
19/06/02	Mr Ip Chun Wing DSD / EI Transmit from RSS	WR/C/200206-00024 WR1CRN2002-0131862 02-C0059	1) Construction debris (short pieces of lumber) has been flowing into the DSD pond area during each rainfall, and the short lumber is causing problem to its screw pumps, please prevent future debris from being wash into the pond area. 2) Some discharge to the DSD pond area is being cumulated in a "dead area" which JV's temporary pump cannot reach. The stagnant water is causing foul smell and mosquito breeding, please prevent water from cumulating in this area.	I have go to check, see photos and our Site Agent Mr Keung said we regular joint inspection with Arup. 1) No construction debris on the low level pond can be found. 2) Stagnant water is not caused by us. We haven't block the channel in dead area.	Informed to Wilson Wong on 27/06/2002
No environmental related complaint was received in July 2002.					
No environmental related complaint was received in August 2002.					
17/09/02	Mr Tsang Transmit from RSS	WR/C/200209-00017 WR1CRN2002-0198534 02-C0083	Mr Tsang (tel 9750 5076) complained about the noise generated by the metal plate on the road surface. Location: near Sun Yuen Long Centre from Long Yat Road to Castle Peak Road, there is traffic light in front of the zebra crossing. The metal plate was located here. He urged WR to fix the problem ASAP.	I have contacted complainant Mr Tsang on 24/9/02 and understand the location and remedy work completed on 29/9/02 and replied to Mr Tsang on 30/9/02 morning	30/09/02

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
30/09/02	Ms Tse Resident of Sun Yuen Long Centre Transmit from RSS	WR/C/200209-00059 WR1CRN2002-0206991 02-C0084	Ms Tse (tel 2756 9921) is a resident of Sun Yuen Long Centre, located opposite to Tung Bin Lane, Nam Bin Wai. She found that there is a fenced area at the entrance of Tung Bin Lane (near the toilet and in front of TDD's site office). Where no works are being implemented. Many rubbish and water pond generated there, resulting in the breeding of mosquitoes. She urged WR to solve this problem.	When I received the fax from Mr Francis Tsui of RSS in 28/9/02 morning then I have go to check. There is not our site, just next to TDD site entrance and in front of publish toilet, there are many rubbish bin and stagnant water at the ground, she should report to FEHD. At 09:30 on 30/9/02, I success to contact Ms Tse. She told me that at No. 9 Tung Bin Lane. TDD site chain link fence just in front of No. 9 and store some construction material i.e. manhole etc. KCRC should refer this case to TDD site management. Not our business.	30/09/02
No environmental related complaint was received in October 2002.					
04/11/02	Ms Chan Creative Kindergarten (Yuen Long) Transmit from RSS	WR/C/200210-00048 WR1CRN2002-0232322 02-C0091	Creative Kindergarten (level 4, SYLC), complained that noise generated from WR works at SYLC caused nuisance while the school was in session. School hour- Mon-Fri : 0830-1230, 1330-1630 Sat : 0900-1200	Since we received complaint from Kai Shing that we have arranged to carry out noise monitoring at inside classroom and found that the noise is acceptable and comply the HK regulation, but we still close monitoring the nuisance and use low noise machine.	06/11/02
08/11/02	Ms Sin Leisure and Culture Service Department Transmit from RSS	WR/C/200211-00002 WR1CRN2002-0235133 02-C0093	Ms Sin Of LCSD (Tel: 2473 4964) referred complaints from the LOP residents regarding the hygiene at Chun Yin Square playground. There were many construction wastages placing inside the hoarded area in the playground. She urged WR/Contractor to clear the stuff ASAP.	I have contact their office at 09/11/02 to have more information but Ms Sin is rest day. Her staff told me it is a complaint from F&EH for stagnant water at site. At 14:00 on 11/11/02, Ms Sin called me that there is a tarpaulin cover for equipment or construction materials, or waste on site. And no stagnant water on the tarpaulin cover, but I have ask our labour to make tarpaulin cover at steep direction to prevent store water there.	12/11/02

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
29/11/02	Mr P C Leung of Highways Department Transmit from RSS	WR/C/200210-00046 WR1CRN2002-0244277 02-C0095	HyD referred YLDL member Mr Wong Wai Yin's complaint on the traffic noise at Fu Loy Garden after the road diversion.	<p>KCRC Action: Noise measurement was taken at the podium of Fu Loy Garden during the peak hour 19:00-20:00 hr on 21/11/02 night by KCRC. Environment team Mr Peter Choi. The measurement noise level was within the noise limit. Another set of plate will be obtained for 22/11/02 morning peak hour (0800-0900 hr). Based on the observation, the traffic flow is not that much. It is believed that the noise nuisance is not caused by the high noise level but due to the impulsive noise heavy trucks.</p> <p>Please noted that this is a permanent work design, KCRC follow and replied to HyD during phone conversation between Ms Viola Tong and Ms Etena Leung of KCRC.</p>	KCRC Action
No environmental related complaint was received in December 2002					
No environmental related complaint was received in January 2003					
No environmental related complaint was received in February 2003					
14/03/03	Ms Cheung Resident of Sun Yuen Long Centre 10/03/03 at 17:19hrs Transmit from RSS	WR/C/200303-00008 WR1CRN2003-0042045 03-C0011	Ms Cheung complained about the noise generated from EMUS on test run and queries the effectiveness of noise mitigation measures for Yuen Long Station and the viaduct. She wishes to know why full enclosure at Yuen Long Station and viaduct nearby is not provided and requested for noise measurement. Ms Cheung has also complained the problem to SYLC OC Chairman Tang Kwok Sun and Management Office.	I think this question is suitable KCRC to answer, not us.	N/A

Date Received	Complainant	KCRC Ref. RSS Ref. AHK Ref.	Details of the Complaint	Finding and Action	Reply Date
24/03/03	Ms Tang 18/03/03 at 15:55hrs Transmit from RSS	WR/C/200303-00021 WR1CRN2003-0052887 03-C0014	Ms Tang lives near Long Ping Station. In the recent two months, she found the site near Chun Kwong Primary School generated unbearable noise. Noise started from 8:00am everyday. She now raise two question: 1) Why the site can start works at 8:00am every day. 2) Why there is no any notice telling passed-by about the works details.	This is PTI Contractor CC204, not CC202. Henry Man already answer and closed file. Public Notice of Work to Long Ping resident by CC202 is a communication system.	Informed to Henry Man of KCRC on 25/03/03 at 11:45am.
No environmental related complaint was received in April 2003					
28/04/03	A villager of Tai Kiu Tsuen e-mail from Mathew Kwan	WR/C/200304-00059 03-C0017	A villager complained about the noise generated from WR construction site near Tai Kiu Tsuen. Noise was made inside the station overnight. The caller couldn't sleep and felt unacceptable. She urged WR to follow up as soon as possible.	No contract number. Station speaker have work overnight for testing. This is not related to our works. Already transfer information to Mr Henry Man ROS station speaker "Bum in".	Informed to Henry Man of KCRC
13/05/03	Ms Lam Resident of Long Ping Estate (Tel 2770 0051) E-mail from Mathew Kwan of KCRC	WR/C/200305-00020 03-C0016	Starting from last Saturday (10 May 2003) till yesterday (12 May 2003) there were some grinding noise generated from the construction site near Long Ping Station, timing is from midnight to early morning. She urged us to investigate and follow up.	According our record, we haven't carried out night work on the station on the date of complaint. Also do have not any noise report from our security. So it would not be our problem.	Informed to Henry Man of KCRC

NB: These are duplicated from JV's complaint records

APPENDIX F MONITORING SCHEDULE FOR THE NEXT THREE MONTHS

Table A - Air Quality and Noise Monitoring

	Monday	Tuesday	Wednesday	Thursday	Friday
12/9 Ying Lung Wai		■	■□		
12/11 Tung Tau Tsuen					□
12/13 Sun Yuen Long Centre		■	■□		
12/15 Shung Tak Sch		■	■□		
12/19 Cheong Wai Mansion		■	■□		
12/47 Tai Kiu Tsuen			□		
13/50 Yuen Long Chun Kwong Sch		□			
13/53 Pok Oi Hospital Leung Sing Tak Primary School					□
13/57 Long Ping Estate		■	■□		
13/58 Fu Loy Garden					□

- Air Quality Monitoring
- Noise Monitoring

Table B - Water Quality Monitoring

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
U6A	○		○		○	
U6B	○		○		○	
U6C	○		○		○	
D6	○		○		○	

- Water Quality Monitoring

APPENDIX G COMMENTS AND RESPONSE

Response to KCRC/IEC comments on April 2003 EM&A Report

Item No.	By	Document Reference	Responses
1	KCRC/IEC	Section 4.2	As mentioned in Section 4.2 that the measured noise level at Shung Tak Primary School (12/15) and Sun Yuen Long Centre (12/13) were very close to baseline noise level, which have already exceeded the Limit Level of 55 dB(A), therefore the exceedances of noise limit level were considered to be attributed by the background noise, which dominated by road traffic noise.

APPENDIX H LIST OF ENVIRONMENTAL LICENCE / PERMIT

Environmental Licence

Permit/Licence Ref./ EPD Ref	Date Approved/ Received/Valid	Description	Remark
EP-004/1998	Since 16/09/98	Environmental Permit for West Rail - Phase I	Superseded
EP-004/1998/B	Since 27/06/01	Environmental Permit for West Rail – Phase I	Superseded
EP-004/1998/C	Since 09/04/02	Environmental Permit for West Rail – Phase I	Superseded
EP-004/1998/D	Since 08/07/02	Environmental Permit for West Rail – Phase I	Superseded
EP-004/1998/E	Since 27/09/02	Environmental Permit for West Rail – Phase I	Superseded
EP-004/1998/F	Since 20/02/03	Environmental Permit for West Rail – Phase I	4
FEP-07/004/1999	Since 05/08/98	Further Environmental Permit for West Rail	4
FEP-03/33/2000	Since 29/02/00	Further Environmental Permit for CC-202	4
WPN5113-527-A2437-01	Since 12/02/00	Waste Producer Registration for Yuen Long Station Site	4
WPN5113-527-A2437-02	Since 13/03/00	Waste Producer Registration for Long Ping Station Site	5
1L/100/1	Till 31/05/05	Trade effluent discharged from the Long Ping Station Site	5
1L/99/1	Till 31/05/05	Trade effluent discharged from the Yuen Long Station Site	4
L-3-180(I)	15/08/00 – 14/08/03	The conduct of a specified process, namely Cement Works, for KCRC CC-202 at Yuen Long Lot No. 460	5
VEP-020/2000/A/EP-004	18 th Aug 00	Variation Environmental Permit for West Rail – Phase I	Superseded
IL98N/I	As from 17/06/00	WPCO-Discharge of domestic sewage into Septic Tank System from Tung Tau Tsuen Site Office	4
IL/101N/I	As from 17/06/00	WPCO-Discharge of domestic sewage into Septic Tank System from Tung Tau Tsuen RE Office	4
017899	29/04/02 – 28/04/03	Storage of D.G. (Oxygen)	4
017900	29/04/02 – 28/04/03	Storage of D.G. (Acetylene)	4
018080	11/10/01 – 10/10/02	Storage of D.G. (Acetylene)	5
018081	11/10/01 – 10/10/02	Storage of D.G. (Oxygen)	5
018234	30/01/02 – 29/01/03	Storage of D.G. (Acetylene)	5
018235	30/01/02 – 29/01/03	Storage of D.G. (Oxygen)	5
VEP-045/2001/EP-004/1998/B	Since 27/06/01	Variation Environmental Permit for West Rail – Phase I	Superseded

Note: 1: Expired 2: Application is in progress 3: Rejected 4: Valid 5: Cancelled

APPENDIX K SUMMARY OF NOTIFICATION OF SUMMON AND STATUS

Summon Ref.	Regulations Affected	Description of Offence	Date Issued	Magistracy	Date of Hearing	Time of Hearing	Outcome of Hearing
TMS14778/2000	Noise Control Ordinance Cap 400	Pour the concrete for large pile in Long Ping during restricted hour, under CNP No. GW-TW0281-00 on 18 th September 2000. Work should be finished at 23:00 but the Contractor finished at 00:25 hour.	9 Jan 01	Tuen Mun	21 Feb 01	09:30am	Summon cancelled since prosecuted to the site worker not the JV
FLS4242/2000	Air Pollution Control Ordinance Cap.311	Use the premises for the conduct of specified process of Cement Works without holding a licence to use the premises for the conduct of that specified process	5 May 01	Fanling	20 June 01	09:30am	Guilty
FLS4243/2000	Air Pollution Control Ordinance Cap.311	Use the premises for the conduct of specified process of Cement Works without holding a licence to use the premises for the conduct of that specified process	5 May 01	Fanling	20 June 01	09:30am	Guilty
FLS710380/2001	Noise Control Ordinance Cap 400	Crane maintenance and platform construction near Ying Lung Wai during restricted hour on 28 th March 2001.	6 Sept 01	Fanling	9 Oct 01	/	Guilty
FLS/14593/2001 FLS/14594/2001 (withdrawn) FLS/14595/2001 (withdrawn)	Water Pollution Control Ordinance Cap 358	Regulation 17b(1), Water Pollution Control Ordinance	Dec 01	Fanling	29 Jan 02	09:30am	Guilty
FLS4126/2002	Noise Control Ordinance Cap 400	Section 6(1) and 6(5), Noise Control Ordinance	25 Nov 01	Fanling	18 Jun 02	/	Guilty
FLS4127/2002	Noise Control Ordinance Cap 400	Section 6(2)(a) and 6(5), Noise Control Ordinance	25 Nov 01	Fanling	18 Jun 02	/	Guilty
FLS 6993/2002	Noise Control Ordinance Cap 400	Section 6(1) and 6(5), Noise Control Ordinance	30 July 02	Fanling	13-14 Feb 03, 15-16 May 03	/	10 Jun 03
FLS9094/2002	Public Health and Municipal Service Ordinance CAP 132	Section 27(3) & 150	April 02	Fanling	25 Oct 02	/	Guilty

APPENDIX L NOE LOG

NOE No.	Date of Monitoring	Sampling Location	Description	Submission Date of Monitoring Data	Date of record input
NE-01263-CC-202-WSR-D6-00	14-July-00	WSR-D6	Limit level exceedance of DO	14-July-00	8-August-00
NE-01262-CC-202-WSR-D6-00	21-July-00	WSR-D6	Action level exceedance of DO	21-July-00	8-August-00
NE-01367-CC-202-WSR-D6-00	23-Aug-00	WSR-D6	Action level exceedance of DO Limit Level exceedance of Turbidity	23-Aug-00	25-Aug-00
NE-01366-CC-202-ASR-12/15-00	22-Aug-00	ASR-12/15	Action level exceedance for 24-hr TSP	24-Aug-00	25-Aug-00
NE-01365-CC-202-WSR-12/9-00	22-Aug-00	ASR 12/9	Action level exceedance for 24-hr TSP	24-Aug-00	25-Aug-00
NE-01356-CC-202-ASR-D6-00	18-Aug-00	WSR-D6	Action level exceedance of DO	18-Aug-00	21-Aug-00
NE-01262-CC-202-WSR-D6-00	16-Aug-00	WSR-D6	Limit Level exceedance of Turbidity	16-Aug-00	21-Aug-00
No NOE received in September 2000					
No NOE received in October 2000					
No NOE received in November 2000					
No NOE received in December 2000					
No NOE received in January 2001					
No NOE received in February 2001					
NE-02548-CC-202-WSR-D6-00	2-Mar-01	WSR-D6	Limit level exceedance of Turbidity and DO	2-Mar-01	-
NE-02559-CC-202-WSR-D6-00	5-Mar-01	WSR-D6	Limit level exceedance of Turbidity and DO	5-Mar-01	-
NE-02577-CC-202-WSR-D6-00	7-Mar-01	WSR-D6	Limit level exceedance of Turbidity and DO	7-Mar-01	-
NE-02599-CC-202-WSR-D6-00	9-Mar-01	WSR-D6	Limit level exceedance of Turbidity and DO	9-Mar-01	-
NE-02632-CC-202-WSR-D6-00	14-Mar-01	WSR-D6	Limit level exceedance of Turbidity and DO	14-Mar-01	-
NE-02681-CC-202-WSR-D6-00	23-Mar-01	WSR-D6	Limit level exceedance of Turbidity and DO	23-Mar-01	-
NE-02682-CC-202-WSR-D6-00	26-Mar-01	WSR-D6	Limit level exceedance of Turbidity and DO	26-Mar-01	-
NE-02843-CC-202-WSR-D6-00	27-April-01	WSR-D6	Limit level exceedance of SS	27-April-01	07-May-01
NE-02841-CC-202-NSR-12/15-00	02-May-01	NSR-12/15	Limit Level exceedance of Noise	02-May-01	07-May-01
NE-02842-CC-202-WSR-D6-00	02-May-01	WSD-06	Action level exceedance of DO	02-May-01	07-May-01
NE-02859-CC-202-WSR-D6-00	07-May-01	WSD-06	Action level exceedance of DO	07-May-01	09-May-01
NE-02927-CC-202-WSR-D6-00	18-May-01	WSD-06	Limit level exceedance of Turbidity	18-May-01	04-Jun-01

NOE No.	Date of Monitoring	Sampling Location	Description	Submission Date of Monitoring Data	Date of record input
NE-02929-CC-202-WSR-D6-00	18-May-01	WSR-D6	Limit level exceedance of SS	21-May-01	04-Jun-01
No NOE received in June 2001					
No NOE received in July 2001					
No NOE received in August 2001					
No NOE received in September 2001					
No NOE received in October 2001					
No NOE received in November 2001					
No NOE received in December 2001					
No NOE received in January 2002					
No NOE received in February 2002					
No NOE received in March 2002					
No NOE received in April 2002					
No NOE received in May 2002					
No NOE received in June 2002					
No NOE received in July 2002					
No NOE received in August 2002					
No NOE received in September 2002					
No NOE received in October 2002					
No NOE received in November 2002					
No NOE received in December 2002					
No NOE received in January 2003					
No NOE received in February 2003					
No NOE received in March 2003					
No NOE received in April 2003					
No NOE received in May 2003					