

KCRC WEST RAIL CC213
TUEN MUN STATION
MONTHLY EM&A REPORT - JUNE 2003

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EXECUTIVE SUMMARY

HK ACE JV, the main Contractor for West Rail CC213 appointed Hyder as the Contractor's Environmental Team (CET) to undertake the Environmental Monitoring and Audit (EM&A) works in accordance with the contract specific EM&A Manual. This is the monthly EM&A report which summarises the impact monitoring and auditing data for June 2003.

Construction Programme

Major construction activities undertaken in June 2003 during non-restricted hours included cladding installation, miscellaneous construction and E&M installation at San Fat LRT station; E&M installation at station structure; painting and cementitious spraying of steelwork at south end station structure; ramp construction at Ho Tin ramp, construction of Footbridge No. 1, platform, concourse and mechanical level fit out; trackside walkway installation, miscellaneous utilities/services/pedestrian/traffic diversions; concrete road reinstatement at Kin Fung Circuit; and works along viaducts and within the station structure by Railway Operation System (ROS) Contractors.

Works during restricted hours with valid CNPs included concreting station painting and cementitious spraying adjacent to and above San Fat LRT and Pui To Road; construction activities for LRT viaduct south of Pui To Road over the existing LRT, removal of nullah cross dam at the southern end of the site, and painting of structural steelwork at the southern end of the station. Prescribe Construction Works (PCW) within the station area including scaffold erection/dismantling and hammering were also carried out during restricted hours. Since this is outside the designated area, CNP was not required.

Air Quality Impact Monitoring

No Action and Limit Level exceedance was recorded, which indicated that the construction activities carried out in June 2003 were in full compliance with the air quality criteria of the Project.

Noise Impact Monitoring

Monitoring at 18/60, 18/63 and 18/69 on 9th June 03, as well as 18/51 on 10th June 03 were rescheduled to 12th June 03 due to inclement weather conditions. No noise exceedance for non-restricted hours was recorded during the reporting month.

Exceedance of Limit Level during restricted hours was recorded at Kam Wah Garden (18/74) on 25th June 03. The exceedance was mainly caused by the traffic noise on the adjacent heavy trafficked roads including Tuen Mun Heung Sze Wui Road and Pui To road.

Water Quality Impact Monitoring

No exceedance of Action or Limit Levels was recorded during the reporting month. This indicates that the construction activities carried out in June 2003 were in full compliance with the water quality criteria of the project.

Environmental Auditing

Hyder Consulting Limited

EA00611/R126/1

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Regular site inspection/audits were carried out by the CET on 6th, 12th, 20th and 27th June 2003. All observations have been recorded in the audit checklist and, together with the CET's recommendations, have been passed to the Contractor.

Site audit was carried out by the IEC on 10th June 2003. No Non-Compliance (NC) was issued by the IEC.

Waste Management

No waste disposal was reported in June 2003.

Complaints

No complaint was received in the reporting month.

Notification of Summons, Successful Prosecutions and Corrective Actions

No Notification of Summons was received during the reporting month.

Future Key Issues

The construction activities for the next three months will be the same as those carried out in June 2003. Therefore it is anticipated that the results of water quality, air quality and noise impact monitoring for the upcoming three months will be similar to the results measured in June 2003.

1. BACKGROUND INFORMATION

1.1 PROJECT INFORMATION

West Rail Contract CC 213 (hereafter known as the Project) comprises of the construction of Tuen Mun Station. The station is one of the new stations at the Western Section of the West Rail alignment, which extends from Yuen Long Station to Tuen Mun Station. The site of Tuen Mun Station is located in the centre of Tuen Mun, which is adjacent to Tuen Mun Town Park. Figure 1.1 shows the Project location.

HK ACE JV is the main Contractor for the Project. It is a joint venture between Hong Kong Construction (Holdings) Limited, AMEC International Construction Limited, China Railway Construction Company Limited and China Everbright Holdings Company Limited (hereafter known as the Contractor). 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 been issued.

Major construction works for the Project has commenced. Impact monitoring for air quality, noise and water quality have been undertaken by the CET during the course of the works.

1.2 CONSTRUCTION PROGRAMME

The overall construction programme from the detail design to completion of all civil works will take approximately 51 months. The construction of Tuen Mun Station will comprise all activities from foundation works to electrical mechanical installation. As for all stations on the West Rail alignment, there will be associated footbridges, subways and passenger transport interchanges. Figure 1.2 presents the 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 1.3.

In general, CET is responsible for regular on-site monitoring and audits/inspection on environmental issues and report to the Contractor of any potential environmental deficiencies. The Independent Environmental Checker (IEC) is responsible for carrying out the formal audit and verify the overall environmental performance. Finally, the Environmental Manager of KCRC will manage the IEC who would to review the deliverables 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 rainstorm 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. Results are summarised in Section 4.1.

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.

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.

All HVAS were calibrated before commencement of monitoring using 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 level. Calibration Kit Model - G2523 is used for calibration of the HVAS. Recalibration of the HVAS should be carried out after motor maintenance, at least once every six months which is

about the expected life of carbon brush. Appendix I presents the calibration worksheets for the HVAS.

2.1.4 Monitoring Locations

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

Table 2.1 List of Locations for Air Impact Monitoring

Name	Description	Location of the HVAS
Tuen Mun School Dental Clinic (18/51)	It locates on Tsun Wen Road, adjacent to the LRT station and the residential tower blocks of Chelsea Heights.	1/F podium, facing Tuen Mun River
St. Simon Lui Ming Choi Secondary School (18/63)	It is a standard, 7 storey high secondary school, locates adjacent to Tuen Mun Heung Sze Wui Road and Ho Pong Street.	G/F at the playground of the School, facing Tuen Mun River
Tuen Mun Town Park (18/76)	It locates on Tuen Mun Heung Sze Wui Road, adjacent to the LRT alignment.	ground level, north of the park near San Fat LRT Station

2.1.5 Action and Limit levels

The Action and Limit Levels for the 24-hours air quality monitoring is shown in Table 2.2. The actual values are presented in Table 4.1.

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 Table 2.3 and 2.4 respectively. ECP for Complaints Handling is shown in Table 2.5.

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

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 2.3 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 e-mail.		■	
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 e-mail 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 2.4 Event Contingency Plan for Limit 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 e-mail.		■	
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 e-mail 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 2.5 Event Contingency Plan for Complaints Handling

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 e-mail.	■	■	■	
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.		■		
13.	25	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. If the complainant has further comments or complaints on the same issue, notify other parties on the same day and go to step 2.		■	■ □	

■ action party

□ enter comments/proposals into the appropriate exceedance 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

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 $L_{eq(30\text{ min})}$ 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 (19:00-07:00 hours or any time on general holidays including Sunday) in terms of $L_{eq(15\text{min})}$ should be undertaken if the construction activities are being carried out in 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 observe, both on-site and off-site, will be recorded on the field data sheet. All measurements are recorded to the nearest 0.1 dB. All measured data are provided in the electronic format and results are summarised in Section 4.2.

2.2.2 Monitoring Methodology

Sound level meters, which comply with the International Electrotechnical Commission Publication 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications as referred to the Technical Memorandum (TM) issued under the Noise Control Ordinance, were used. Noise levels for the A-weighted levels L_{eq} , L_{10} and L_{90} were measured throughout the impact 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). 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 were not present during the baseline monitoring period. All measurements are recorded to the nearest 0.1dB(A).

2.2.3 Monitoring Equipment

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 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) of which five have been selected for the noise impact monitoring. They are listed in Table 2.6 and shown in Figure 2.2.

Table 2.6 List of Locations for Noise Impact Monitoring

Name	Description	Location of the Sound Level Meter
Tuen Mun School Dental Clinic (18/51)	It locates on Tsun Wen Road, adjacent to the LRT station and Chelsea Heights Phase 2.	On 1/F podium, facing the nullah
Mei Kei Mansion (18/60)	It is a 10 storey high residential building locates adjacent to Ho Pong Street.	At the corner of Mei Kei Mansion along Ho Pong Street
St. Simon Lui Ming Choi Secondary School (18/63)	It is a standard, 7 storey high secondary school, locates adjacent to Tuen Mun Heung Sze Wui Road and Ho Pong Street.	On 1/F near the staircase, facing Tuen Mun River
Koon Hing Mansion (18/69)	It is a 7 storey high residential building locates adjacent to Tuen Mun Heung Sze Wui Road.	Footpath next to Kam Sing Bank on Tuen Mun Heung Sze Wui Road
Kam Wah Garden (18/74)	It is a high rise residential complex consists of 4 blocks of some 20 storey high apartments.	On 4/F podium, facing Tuen Mun Town Park

2.2.5 Action and Limit Levels

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 Rating (ASR) for these monitoring locations are classified as “C”, for urban area which are indirectly affected by the Influencing Factor (IF).

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

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

Time Period	Action	Limit
Non-restricted hours (0700-1900 on normal weekdays)	When one or more documented complaints are received	75dB(A)*
restricted hours (19:00-07:00 hours or any time on general public holidays including Sundays)	When one or more documented complaints are received	refer to relevant 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, construction noise limit for schools not provided with noise insulation is 70dB(A) during normal term time and 65dB(A) during examination period. For schools with noise insulation, the noise limit level is 80dB(A) during normal term time and 75dB(A) during examination period.

2.3 WATER QUALITY

2.3.1 Water Quality Parameters

Impact monitoring for water quality is 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%), salinity in part per thousand (ppt) and 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 depth.

2.3.2 Monitoring Methodology

Parameters, which are measured in-situ, such as DO, DO% saturation and temperature were measured at all stations on each monitoring day. According to the EM&A Manual, impact monitoring was undertaken on three working days per week. All measurement and sampling are taken at one depth (mid-depth of each monitoring station) and randomly since there is no significant of tidal influence. In the case where the difference in value between the first and second measurement of each set is higher 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 other measurements.

A stainless steel bucket harged by stainless steel chain is used for water sampling due to the reason that 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 as practicable as possible. 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 monitoring:

2.3.3.1 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.
- (iii) Salinity in the range of 0.0-40.0 ppt.

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

2.3.3.2 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.

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

2.3.3.3 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.

2.3.3.4 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, by counting the time required by a floating object to flow through a known distance and calculated the flow rate.

2.3.4 Monitoring Locations

Water quality monitoring locations have been identified in the Project specific EM&A Manual. Two locations are identified for the water quality impact monitoring and they are listed in Table 2.8. Figure 2.3 presents their locations.

Table 2.8 List of Locations for Water Quality Impact Monitoring

Station I.D.	Description
U11	Upstream of Tuen Mun River near Tuen Mun Station
D11	Downstream of Tuen Mun River near Tuen Mun Station

2.3.5 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 measured at the upstream control station (i.e. U11) and during the baseline monitoring which will be presented in Section 4 of this report.

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.

Table 2.9 Action and Limit Levels for Water Quality Monitoring

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 and
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.*

3. SUMMARY OF CONSTRUCTION ACTIVITIES

3.1 CONSTRUCTION ACTIVITIES

In June 2003, the major site construction activities undertaken include the following:

- Cladding installation, miscellaneous construction and E&M installation at San Fat LRT station;
- E&M installation – station structure;
- Painting and cementitious spraying of steelwork – south end station structure;
- Platform, concourse and mechanical level fit out;
- Ramp construction at Ho Tin ramp;
- Footbridge no. 1 construction;
- Platform, concourse and mechanical level fit out;
- Trackside walkway installation;
- Miscellaneous utilities/services/pedestrian/traffic diversions;
- Concrete road reinstatement at Kin Fung Circuit; and
- Railway Operation System (ROS) Contractors carrying out works along the viaducts and within the station structure.

Works carried out during restricted hour under valid CNPs included:

- Concreting station;
- Painting and cementitious spraying adjacent to and above San Fat LRT and Pui To Road;
- Construction activities for LRT viaduct south of Pui To Road over the existing LRT;
- Removal of nullah cross dam at the southern end of the station;
- Painting of structural steelwork at the southern end of the station; and
- Prescribe Construction Works (PCW) within the station area included scaffold erection/dismantling and hammering (non-designated area).

3.2 VALID EPD PERMITS/LICENCES

All EPD permits or licences which are valid, under application or rejected during the reporting month are shown in Appendix H.

3.3 ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

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

4. MONITORING RESULTS

4.1 AIR QUALITY

The 24-hour TSP impact monitoring results for June 2003 and the corresponding Action and Limit Levels are summarised in Table 4.1. More detailed results, including the weather conditions, and the graphical presentation of the results are presented in Appendix A.

Table 4.1 Results of Air Quality Impact Monitoring in June 2003

Location	Action level ($\mu\text{g}/\text{m}^3$)	Limit level ($\mu\text{g}/\text{m}^3$)	Date	24-hr TSP ($\mu\text{g}/\text{m}^3$)
Tuen Mun School Dental Clinic (18/51)	200	260	2-Jun-03	64.50
			9-Jun-03	50.46
			16-Jun-03	46.12
			23-Jun-03	54.02
			30-Jun-03	59.44
St. Simon Lui Ming Choi Secondary School (18/63)	185	260	7-Jun-03	107.30
			14-Jun-03	98.38
			21-Jun-03	125.33
			28-Jun-03	137.78
Tuen Mun Town Park (18/76)	190	260	7-Jun-03	89.55
			14-Jun-03	94.18
			21-Jun-03	112.78
			28-Jun-03	122.99

Notes: Cell shaded represents an action level exceedance; cell shaded with thicker border represents a limit level exceedance.

No air quality exceedance was recorded during the reporting month.

4.2 NOISE

Results of measured noise level, in terms of $L_{\text{eq}(30\text{min})}$, during non-restricted hours are shown in Table 4.2. Results of measured noise level, in terms of $L_{\text{eq}(15\text{min})}$, during restricted hours are shown in Table 4.3. Detailed results, including the weather conditions, and the graphical presentation of the results is presented in Appendix B.

Table 4.2 Results of Noise Impact Monitoring During Non-Restricted Hours in June 2003

Location	Date	Limit Level, dB(A)	Average Impact noise measurement (30 min.) dB(A)		
			Leq	L ₁₀	L ₉₀
Tuen Mun School Dental Clinic (18/51)*	3-Jun-03	75	71.8	75.8	67.0
	12-Jun-03 ⁽²⁾		68.7	70.7	65.2
	17-Jun-03		66.6	69.2	60.0
	24-Jun-03		66.0	67.2	60.8
Koon Hing Mansion (18/69)	2-Jun-03	75	70.9	73.7	68.2
	12-Jun-03 ⁽¹⁾		72.1	74.7	68.6
	16-Jun-03		70.0	72.2	65.6
	23-Jun-03		70.3	72.3	67.0
	30-Jun-03		69.7	72.3	63.9
Kam Wah Garden (18/74)	2-Jun-03	75	71.9	74.8	67.7
	9-Jun-03		70.8	73.7	65.8
	16-Jun-03		70.2	73.5	67.2
	23-Jun-03		69.7	72.9	65.1
	30-Jun-03		69.7	72.2	63.1
Mei Kei Mansion (18/60)	2-Jun-03	75	69.6	72.3	63.5
	12-Jun-03 ⁽¹⁾		68.0	71.0	62.7
	16-Jun-03		68.9	71.4	64.8
	23-Jun-03		74.2	77.8	67.2
	30-Jun-03		68.8	70.3	65.2
St. Simon Lui Ming Choi School (18/63)	2-Jun-03	80	69.8	72.1	64.5
	12-Jun-03 ⁽¹⁾		64.5	65.8	61.7
	16-Jun-03	75	73.2	75.6	70.3
	23-Jun-03		68.3	70.1	66.7
	30-Jun-03		70.2	71.9	67.3

Note: Limit level for 18/63 St. Simon Lui Ming Choi Secondary School (with noise insulation) is 80dB(A) during normal term time and 75dB(A) during examination period.

- * Measurements were under free field condition, therefore facade correction of 3dB(A) has been added to the measurements.

Cell shaded with thicker border represents an exceedance of Limit Level.

(1) Re-scheduled from 9 June 2003 due to bad weather conditions.

(2) Re-scheduled from 10 June 2003 due to bad weather conditions.

No noise exceedance for non-restricted hours was recorded during the reporting month.

Table 4.3 Results of Noise Impact Monitoring during Restricted Hours in June 2003

Location	Date	Time	Limit Level dB(A)	Average Impact Noise Measurement (15 min.) dB(A)		
				L _{eq}	L ₁₀	L ₉₀
Kam Wah Garden (18/74)	2-Jun-03	19:30	70	70.1	73.1	65.5
	11-Jun-03	20:00		70.3	74.5	63.2
	17-Jun-03	19:25		69.7	72.8	64.3
	25-Jun-03	19:55		71.0	73.5	66.8

Notes: Cell shaded with thick border represents an exceedance of Limit Level

Exceedance of Limit Level during restricted hours was recorded at Kam Wah Garden (18/74) on 25th June 03. The exceedance was mainly caused by the traffic noise on the adjacent heavy trafficked roads including Tuen Mun Heung Sze Wui Road and Pui To road.

4.3 WATER QUALITY

The results of water quality impact monitoring for the stations in June 2003 are shown in Table 4.4. For the ease of reference, the Action and Limit Levels for D11 are presented in Table 4.5. The detail results, including graphical plots are present in Appendix C.

Table 4.4 Results for Water Quality Impact Monitoring at U11 / D11

Date	DO(mg/L)			Turbidity(NTU)						SS(mg/L)			
	Action Level	Limit Level	U11 / D11 Measured	Action Level*	Limit Level*	U11 / D11 Measured	Action Level*	Limit Level*	U11 / D11 Measured	Action Level*	Limit Level*	U11 / D11 Measured	
2-Jun-03	2.7	2.6	3.7 4.4	101.1/ 17.5	106.9/ 19.0	14.6 31.0	105.0/ 7.2	109.0/ 7.8	6 21				
6-Jun-03	2.7	2.6	4.3 4.6	101.1/ 13.9	106.9/ 15.1	11.6 15.6	105.0/ 24.0	109.0/ 26.0	20 5				
9-Jun-03	2.7	2.6	4.4 4.8	101.1/ 25.8	106.9/ 28.0	21.5 18.7	105.0/ 20.4	109.0/ 22.1	17 10				
11-Jun-03	2.7	2.6	4.6 4.2	101.1/ 39.6	106.9/ 42.9	33.0 23.2	105.0/ 10.2	109.0/ 11.1	9 7				
13-Jun-03	2.7	2.6	4.6 4.9	101.1/ 26.5	106.9/ 28.7	22.1 32.4	105.0/ 6.0	109.0/ 6.5	5 5				
16-Jun-03	2.7	2.6	4.4 4.7	101.1/ 21.5	106.9/ 23.3	18.0 24.0	105.0/ 9.6	109.0/ 10.4	8 23				
18-Jun-03	2.7	2.6	4.6 4.6	101.1/ 30.0	106.9/ 32.5	25.0 35.7	105.0/ 7.8	109.0/ 8.5	7 8				
20-Jun-03	2.7	2.6	4.4 4.6	101.1/ 24.6	106.9/ 26.7	20.5 28.4	105.0/ 6.0	109.0/ 6.5	5 5				
23-Jun-03	2.7	2.6	4.4 4.8	101.1/ 37.7	106.9/ 40.8	31.4 34.0	105.0/ 6.6	109.0/ 7.2	6 5				
25-Jun-03	2.7	2.6	4.5 4.6	101.1/ 38.1	106.9/ 41.3	31.8 30.7	105.0/ 6.0	109.0/ 6.5	5 5				
27-Jun-03	2.7	2.6	4.1 4.2	101.1/ 31.4	106.9/ 34.1	26.2 29.3	105.0/ 6.0	109.0/ 6.5	5 8				
30-Jun-03	2.7	2.6	4.4 4.7	101.1/ 45.7	106.9/ 49.5	38.1 37.4	105.0/ 7.2	109.0/ 7.8	6 5				

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

Cell shaded represents an action level exceedance; cell shaded with thicker border represents a limit level exceedance.

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.

Table 4.5 Action and Limit Levels for Water Quality Monitoring

Station No.	Action Level			Limit Level		
	SS (mg/l)	DO (mg/l)	Turbidity (NTU)	SS (mg/l)	DO (mg/l)	Turbidity (NTU)
D11	105 (95% tile of the baseline) and 120% of upstream control stations	2.7 (5% tile of baseline)	101.1 (95% tile of baseline) and 120% of upstream control stations	109 (99% tile of the baseline) and 130% of upstream control stations	2.6 (1% tile of baseline)	106.9 (99% tile of baseline) and 130% of upstream control stations

Note: Action and Limit Levels for U11 is not required since it is the upstream control stations.

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.

Cell shaded represents an exceedance of action level; cell shaded with thicker border represents an exceedance of limit level.

No exceedance of Action or Limit Levels was recorded during the reporting month. This indicates that the construction activities carried out in June 2003 were in full compliance with the water quality criteria of the project.

4.4 SUMMARY OF EXCEEDANCES

Table 4.6 below summarises the total number of exceedances recorded for air quality, noise and water quality for the month of June 2003.

Table 4.6 Summary of Exceedances in June 2003

Exceedance	Total no. of measurement	Action Level Exceedance	Percentage of Action Level Compliance	Limit Level Exceedance	Percentage of Limit Level Compliance
Air Quality	13	0	100%	0	100%
Noise					
Non-restricted hour	24	N/A	N/A	0	100%
Restricted hour	4	N/A	N/A	1	75%
Water Quality					
DO	12	0	100%	0	100%
Turbidity	12	0	100%	0	100%
SS	12	0	100%	0	100%

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

No NoE was received during the reporting month.

Cumulative logs for Notice of Exceedance (NoE's) received since the commencement for the construction are presented in Appendix J.

5. NON-COMPLIANCE AND DEFICIENCY

5.1 SITE INSPECTION/AUDIT

5.1.1 Site Inspection/Audit by CET

CET had carried out site inspection/audits once a week. In June 03, site audit had been carried out at the sites:

- Tuen Mun Town Park to Tuen Mun Dental Clinic – 6th June 2003;
- Tuen Mun Town Park to Tuen Mun Dental Clinic – 12th June 2003;
- Tuen Mun Town Park to Tuen Mun Dental Clinic – 20th June 2003; and
- Tuen Mun Town Park to Tuen Mun Dental Clinic – 27th June 2003.

All observations have been recorded in the audit checklist and passed to the Contractor together with the appropriate recommended mitigation measures where necessary. Significant deficiencies observed during site inspection/audits and recommendation, which have been made by the CET, are summarized in Table 5.1 below:

Table 5.1 Summary of Site Inspection/Audits and Recommendations

Significant Deficiencies Observed	CET Recommendation
<ul style="list-style-type: none">No significant deficiency was observed.	N/A

5.1.2 Site Audit by IEC

IEC carried out a site audit on 10th June 2003. Observations and recommendation are summarized as below:

- 1) Landscaping work at Tuen Mun Park is outstanding.

Appendix K presents a cumulative log for Notice of Non-Compliance for Site Inspection/Audit received since the commencement of the Project.

6. WASTE MANAGEMENT

No waste disposal record was received during the reporting month.

7. COMPLAINT

No complaint was received in the reporting month.

Appendix E presents a complaint log that summarized all complaints received since the commencement of the Project.

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

There was no notification of summons received in the reporting month.

Appendix L summarizes the information on notification of summons and possible prosecutions received since the commencement of the Project.

9. FUTURE KEY ISSUES

The construction activities for the next three months will be the same as those carried out in June 2003. Therefore it is anticipated that the results of water quality, air quality and noise impact monitoring for the upcoming three months will be similar to the results measured in June 2003.

A weekly basis monitoring schedule for the next three months is presented in Appendix F in this report. The monitoring events will be the same as this month and can be referred to the methodology for air quality, noise and water quality monitoring in Sections 2.1.2, 2.2.2, and 2.3.2 of this report respectively.

10. CONCLUSION

Air quality, noise and water quality impact monitoring has been undertaken in June 2003 in accordance with the EM&A Manual.

No exceedance of Action or Limit Level for air quality was recorded, which indicated that the construction activities carried out in June 2003 were in full compliance with the air quality criteria of the Project.

Non-construction related noise limit level was recorded at Kam Wah Garden (18/74) during restricted hours. The exceedance was mainly caused by traffic noise.

No exceedance of Action or Limit Levels was recorded during the reporting month.

Site inspections/audits were carried out by CET and IEC during the reporting month. No Non-Compliance was issued and no significant deficiency was noted by the IEC.

The Contractor will continue to review construction methods and environmental impacts and implement suitable mitigation measures as necessary.

APPENDIX D ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

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.	Site clearance, piling, pile cap construction, column construction, station construction, roof erection	All work area.	Throughout the construction period	West Rail Environmental Impact Assessment (West Rail EIA) Essential Public Infrastructure Works - Environmental Monitoring & Audit Manual (EPIW-EM & A Manual) Site agent monitored by Project EM	Current being implemented on site
Use of movable noise barrier where practicable when an exceedance of noise criteria is anticipated. (For example area noise sources such as plant / crane engines)	Site clearance, piling, pile cap construction, column construction, station construction, roof erection at ground level	All work area.	Throughout the construction period	West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	Current being implemented on site
Reduce number of plant operating simultaneously close to NSRs	Piling, pile cap construction, column construction, station construction, roof erection	All work area.	Throughout the construction period	West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	Current being implemented on site
Limiting the on-time period or number of items of noisy plant operating at one time.	Piling, pile cap construction, column construction, station construction	All work area.	Throughout the construction period	West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	Current being implemented on site
Good site practices include: a) Operation of only well maintained plant on-site; b) Regular servicing of plant during	All construction activities involving Power Mechanical Equipment (PME)	All work area.	Throughout construction phase	West Rail EIA EPIW-EM & A Manual Site agent monitored by Project EM	Current being implemented on site

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
<p>construction;</p> <p>c) Restriction of rock drilling to the shortest period possible;</p> <p>d) Use of and maintenance of silencers or mufflers on construction equipment during construction;</p> <p>e) Sitting of mobile plant as far away from NSRs as possible;</p> <p>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</p> <p>g) Orientation of plant known to emit noise strongly in one direction such that the noise is directed away from nearby SRs.</p>					
Air Quality Impacts					
<p>i) Site boundary and entrance</p> <p>a) Where a site boundary adjoins a road, street, service lane 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.</p> <p>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</p>	All construction activities	<p>Site boundary</p> <p>Site entrance</p>	Throughout the construction period	<p>Part III item 13 of the Air Pollution Control (Construction Dust) Regulation</p> <p>West Rail EIA</p> <p>EPIW - EM & A Manual</p> <p>Site agent monitored by Project EM</p>	Current being implemented on site

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
place and the section of road between the washing facilities and the exit point is paved with concrete, bituminous or hard-core material.					
ii) (a) Cement Storage and Handling Every stock of more than 20 bags of cement shall be covered entirely by impervious sheeting on 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 within one minute. (c) 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 (Construction Dust) Regulation Site agent monitored by Project EM	Current 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 bowsers 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 (Construction Dust) Regulation Site agent monitored by Project EM	Current being implemented on site
iii) Exposed earth To minimise dust emissions, the amount of spoil exposed and the dust generation potential shall be	Construction activities involve excavation	All Work Sites	Throughout the construction phase.	Part III item 16 of the Air Pollution (Construction Dust) Regulation	Current being implemented on site

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
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.				West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	
iv) Stockpiles Cover entirely by impervious sheeting, placed in an area sheltered on the top and the three sides; or The entire surface is kept wet by applying water spraying or dust suppression chemical.	Construction activities involve stockpiling	At all stockpiles	Throughout the construction phase.	Part IV item 18 of the Air Pollution (Construction Dust) Regulation Site agent monitored by Project EM	Current being implemented on site
v) Loading, unloading or transfer of dusty materials All dusty materials are sprayed with water immediately before their handling.	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 EPIW - EM & A Manual Site agent monitored by Project EM	Current being implemented on site
vi) If Conveyor belts are used 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. 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.	Material transportation using conveyer belt	Conveyor Belt System	Throughout the construction phase.	Part III item 20 of the Air Pollution (Construction Dust) Regulation Site agent monitored by Project EM	N/A
vii) Debris handling 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	Debris handling	Locations where debris handling is being carried out	Throughout the construction period	West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	Current being implemented on site

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
properly secured and shall extend at least 300 mm over the edges of the side and tailboards. The debris shall be kept wet by water spray prior to dumping into a chute.					
viii) Site clearance During breaking/crushing or demolition works, watering shall be implemented to control dust. All demolished items shall be covered or placed in area with shelter within a day of demolition.	Site Clearance	Location where site clearance is needed	Throughout the construction period	Site agent monitored by Project EM	Current being implemented on site
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 (Opening Burning) Regulation Site agent monitored by Project EM	Current 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 <i>Construction Site Drainage</i> West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	Current being implemented on site
The boundaries of critical areas of earthworks will be marked and surrounded by dykes or	Excavation, stockpiling	All critical areas of earthworks	Throughout the construction phase. Ensure these	West Rail EIA	N/A

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
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.		earthworks	measures be provided before the arrival of rainy season.	EPIW - EM & A Manual Site agent monitored by Project EM	
All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge will be adequately designed for the controlled release of storm flows. 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.	Drainage diversion	Design prior to construction and install immediately on start of construction programme.	Throughout construction phase.	West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	N/A Current being implemented on site
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 (Construction Dust) Regulation West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	Current being implemented on site
Oil interceptors will be provided in the drainage system and regularly emptied to prevent the release of oils and grease into the storm water drainage system after accidental spillage. The interceptor will have a bypass to prevent flushing during periods of heavy rain.	Machine cleaning, oil handling	Located downstream of any significant oil and grease sources	Throughout entire construction phase.	West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	N/A
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 Item 8 of the Water Pollution Control Ordinance	Current being implemented

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
				(WPCO) West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	on site
All fuel tanks / storage areas to be bundled (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 EPIW - EM & A Manual Site agent monitored by Project EM	Current 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 Item 9 of the WPCO and Chapter 354 Part III Item 9 of the Waste Disposal Ordinance Item 23 of the ProPECC PN 1/94 West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	Current 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 EPIW - EM & A Manual Site agent monitored by Project EM	Current being implemented on site
Advance planting for screening		Around Site boundary; wherever practicable	Throughout construction phase.	West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	N/A

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
Minimising height of temporary structures		Wherever practicable	Throughout construction phase.	West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	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 EPIW - EM & A Manual Site agent monitored by Project EM	Current 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 EPIW - EM & A Manual Site agent monitored by Project EM	Current being implemented on site
Completion and submission of Fill management committee (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.	Site agent monitored by Project EM	N/A
Construction waste materials shall be separated into inert, non-inert and chemical waste categories: i Inert waste will be reused as far as possible, and the surplus suitable for reclamation / land formation shall be disposed 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	All construction activities	At all locations	Throughout the construction phase	Chapter 354 Part IV Item 16 of the Waste Disposal Ordinance Sections 4.2 and 4.6 of the Code of Practice on the Packaging, Labelling and storage of Chemical Wastes under Chapter 354 section 35 of the Waste Disposal Ordinance Site agent monitored by Project EM	Current being implemented on site

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
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)					
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 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.	Waste handling and disposal	For all areas on site	Throughout construction phase	Part III Items 9,10 and 11 of the Waste Disposal Ordinance Site agent monitored by Project EM	Current being implemented on site
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 Waste Disposal Ordinance Site agent monitored by Project EM	Current 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 twice day; iii. Maintain and clean waste storage areas daily; iv. Minimise windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed containers; v. Obtain the necessary waste disposal permits from the appropriate authorities; vi. Dispose of waste at licensed sites; vii. Develop procedures such as a ticketing system to facilitate tracking of loads,	Waste disposal procedures	For all areas on site.	Throughout construction phase	Chapter 354 Part III of the Waste Disposal Ordinance West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	Current being implemented on site

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
<p>particularly for chemical waste, and to ensure that illegal disposal of wastes does not occur; and</p> <p>viii. Maintain records of the quantities of wastes generated, recycled and disposed.</p>					
<p>During the excavation process should any material be found or suspected to be contaminated the following will be followed:</p> <ul style="list-style-type: none"> • Inspection of material and visually confirmation of potential contamination. • Sampling and analysis specialist material for disposal options. <p>Excavation works will be supervised at all times by an environmental / contamination specialist.</p>	Excavation, excavated material handling	Work sites where excavation is being carried out	Throughout the construction phase	<p>Items 9,10 and 11 of the ProPECC Noted PN 3-94 Contaminated Land Assessment and Remediation</p> <p>Site agent monitored by Project EM</p>	N/A
<p>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 should be considered to increase the potential for reuse.</p>	Formwork construction	All Site areas	Throughout the construction phase	<p>Item 5 of the Works Branch Technical Circular No. 32/92</p> <p>Site agent monitored by Project EM</p>	Current being implemented on site
<p>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.</p>	Waste management	All Site areas	Throughout the construction phase	<p>West Rail EIA</p> <p>Site agent monitored by Project EM</p>	Current being implemented on site
<p>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</p>	Chemical waste storage	Wherever chemical waste is produced during construction	Throughout the construction phase	<p>Sections 4.2 and 4.6 of the Code of Practice on the Packaging, Labelling and storage of Chemical Wastes under Chapter 354 section 35 of the</p>	Current being implemented on site

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
Wastes				Waste Disposal Ordinance West Rail EIA EPIW - EM & A Manual Site agent monitored by Project EM	
General refuse generated on-site will be stored in enclosed bins or compaction units separate from construction and chemical wastes. A reputable 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 second day basis to minimise odour, pest and litter impacts. The burning of refuse on construction sites is prohibited by law and will not be undertaken.	Waste storage and disposal	All work sites	Throughout the construction phase	Part III Items 9, 10 and 11 of the Waste Disposal Ordinance Site agent monitored by Project EM	Current being implemented on site
Office wastes can be reduced through recycling of paper if volumes are large enough to warrant collection. Participation in a local collection scheme will be considered if one is available.	Waste storage and disposal	All work sites	Throughout the construction phase	West Rail EIA Site agent monitored by Project EM	Current being implemented on site
Nuisance Impacts					
The Contractor shall be responsible for ensuring that no earth, rock or debris is deposited on public or private rights of way as a result of his operations, including any deposits arising from the movement of Construction Plant or vehicles.	All construction activities	At public and private rights of way	Throughout the construction	Chapter 28 of the Crown Land Ordinance Site agent monitored by Project EM	Current being implemented on site
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 Part III Item 9 of the WPCO Chapter of the Crown Land Ordinance Site agent monitored by Project EM	Current being implemented on site
Site hoarding shall be constructed of re-usable	All construction activities	At site boundaries.	Throughout construction	EIA Ordinance	Current being

Environment Protection Measure	Relevant Construction Activities	Location	Time/ Duration	Relevant Legislation / Guidelines and Responsible Personnel	Status
materials sourced without detrimental impact on the environment.			phase.	Site agent monitored by Project EM	implemented on site
Use of tropical hardwoods on-site is prohibited. The Project EM is responsible to ensure no tropical hardwoods will be used by JV. The construction manager will ensure that the sub-contractor 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.	Items 4 and 5 of the WBTC No. 32/92 Throughout construction phase.	EIA Ordinance Site agent monitored by Project EM	Current being implemented on site
The Contractor shall where ever possible avoid transportation of 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 Site agent monitored by Project EM	Current being implemented on site

APPENDIX E COMPLAINTS LOG

No.	Date Received	Complainant	Details of the Complaint	Action	Completion Date	Remark
1	10th March 2000	Mr Leung (resident of Block 1, San Fat Estate)	Noise - Phone call complain regarding noise generated from the nullah after 23:00 last Sunday	JV replied to Mr Leung that their works are complied with EPD's regulations.	10th March 2000	-
2	3rd April 2000 5 th April 2000	Ms Sze Ngar Wong (Mass media) Ms Yeung Mr Kam (Community Site Office)	Noise – Noise generated from construction activities after work hours near Tuen Mun River, Ho Pong Street. Noise – Phone call complain regarding noise generated by machinery at construction site at midnight all the time. Noise – Noise from pumping maching lasted from long time at night from 4 th April from Ho Tin Bridge.	No action has been carried out by the JV since the complaints were received two months after the incidence and the dam removal works have been completed.	N/A	Complaint ref. no: WR/C/200004-00007 Complaint ref. No WR/C/200004-00002 Complaint ref. no: WR/C/200004-00016
3	(No complaint was received in May 2000)					
4	(No complaint was received in June 2000)					
5	(No complaint was received in July 2000)					
6	(No complaint was received in August 2000)					
7	18 th September 2000	General public, via West Rail Hotline	A letter issued from Maunsell ref WR1CRN2000-0190894 dated 18 th September 2000, mentioned a complaint was received from the general public, regarding noise generated from the construction activities within the nullah adjacent to Ho Po Street on Sunday 17 th September 2000. It was noted that the work was undertaken without valid CNP	JV will ensure that valid CNP is available for all work undertaken during restricted hour, and restricted hour noise monitoring will be conducted.	N/A	-
8	(No complaint was received in October 2000)					
9	(No complaint was received in November 2000)					
10	19 th December 2000	General public, via West Rail Hotline	Generation of mud and dust along Ho Pong Street, adjacent to the site.	Monitor areas and clean if necessary, road sweeper used to clean the road.	On-going	-
11	30 th December 2000 and 2 nd January 2001	Engineer	Complaint from the Engineer about breach of CNP on 20 th December 2000 and 2 nd January 2001.	Meeting by the Contractor to their site staff to discuss restricted hour work are prohibited without valid CNP	19 th Jan 01	

No.	Date Received	Complainant	Details of the Complaint	Action	Completion Date	Remark
12	X'mas/New Year	Initially made by the residents at Hong Pong Street, Lung Mun Oasis (Ho Fuk Tong) and Chelsea Height via KCRC	Regarding noise generated from construction work during Christmas and New Year Holidays.	Letter sent to MCAL stating no construction work carried out.	15 th Jan 01	-
13	23 rd -26 th December 2000	Engineer	Complaints from the Engineer regarding breach of CNP (at Ho Fuk Tong School) over the period of 23-26 of December 2000.	Letter sent to MCAL requesting urgent help in gaining CNPs.	15 th Jan 01	
14	5 th January 2001	Engineer	The Engineer read a newspaper article from Ming Pao Daily in relation to siltation of the nullah. This was forwarded from the Engineer to the Contractor to follow.	Closer site supervision of discharge over the nullah cross dam	Closed	
15	6 th January 2001	Engineer	Complaint from Engineer regarding breach of CNP (concreting column for pier 83 and pile cap for Pier 85L) on 6 th January 2001.	Meeting by the Contractor to their site staff to discuss restricted hour work are prohibited without valid CNP	19 th Jan 01	
16	12 th January 2001	Engineer	Complaint from Engineer regarding breach of CNP (concreting cross head pier 81) on 12 th January 2001.	Meeting by the Contractor to their site staff to discuss restricted hour work are prohibited without valid CNP	19 th Jan 01	
17	January 2001	Engineer	Complaint from Engineer regarding breach of CNP (concreting work at base of Pier 88 – EPD intervened to stop pour).	Meeting by the Contractor to their site staff to discuss restricted hour work are prohibited without valid CNP	19 th Jan 01	
18	(No complaint was received in February 2001)					
19	15 th March 2001 (letter from the Engineer)	Nearby residents along Ho Pong Street about 12:00a.m., via the Engineer	Two complaint made from the residents from the near by Ho Pong Street, via the Engineer regarding noise generated from concreting work for pilecaps 180 & 181 and tie beams at P111-P112, P111-P116, P116-P117, P112-P117 & TB114 after 7:00pm without a valid CNP.	The Contractor reminded staff that restricted hour work only be carried out under valid CNP.	Closed	
20	WR/C/200103-00112/29 th March 2001	Resident of Mei Kai Building	Noise from site in the early hours of the morning	Steel fixing and formworking carried out during restricted hours which are valid activities	Work has ceased from 10 th April	Complaint ref no: WR/C/200103-00112

No.	Date Received	Complainant	Details of the Complaint	Action	Completion Date	Remark
					2001	
21	WR/C/2001032-00113/29 th March 2001	Resident near San Fat Estate	Noise from site in the early hours of the morning	Steel fixing and formworking carried out during restricted hours which are valid activities	Work has ceased from 10 th April 2001	Complaint ref no: WR/C/200103-00113
22	(No complaint was received in April 2001)					
23	(No complaint was received in May 2001)					
24	(No complaint was received in June 2001)					
25	(No complaint was received in July 2001)					
26	(No complaint was received in August 2001)					
27	10 th September 2001	Resident nearby Choy Yee Bridge	A complaint was verbally received from resident nearby Choy Yee Bridge with respect to ductwork under Choy Yee Bridge during restricted hours - Police were also called and found that work was being carried out as per permit	Work was being carried out under CNP no. GW-TW0370-01	25 th September 2001	
28	WR/C/200110-00018/6 th October 2001	Complainant near Ho Tin LRT stop	Complainant near Ho Tin LRT stop complained of works late Saturday night and requested when the work would finish	Works carried out under permit no. GW-TW0176-01	N/A	Complaint ref no: WR/C/200110-00018
29	(No complaint was received in November 2001)					
30	WR/C/200112-00065/31 st December 2001	N/A	Complainant lives on 6/F of Kam Wah Garden complains about hammering at the steel structure, traffic cone put down, track laying, welding near Kam Wah Garden between 3:30am -4:30am	Works carried out under permit no. GW-TW0495-01, no track laying		Complaint ref no: WR/C/200112-00065
31	WR/C/200201-00007/N/A	N/A	Complainant resident of Kam Wah Garden complained of noise from dropping traffic cones during Dec 2001 between 12 midnight – 4:00am	Works carried out under permit no. GW-TW0495-01		Complaint ref no: WR/C/200201-00007
32	WR/C/200201-00015/N/A	N/A	Complaint as in 22 above complained about outgoing works since September 2001 till present (7 th January 2002)	Works carried out under permit no. GW-TW0495-01, no track laying		Complaint ref no: WR/C/200201-00015
33	N/A	Resident of Kam Wah Garden	Complaints from residents of Kam Wah Garden from late December 2001 regarding steel erection and traffic cone management at Pui To Road	Works carried out under permit no. GW-TW0610-01, complete	30 th January 2002	
34	(No complaint was received in February 2002)					
35	(No complaint was received in March 2002)					

No.	Date Received	Complainant	Details of the Complaint	Action	Completion Date	Remark
36	N/A	Principal at St Simons Lui Ming Choi Secondary School	Headmaster at Lui Ming Choi School contacted KCRC/MCAL and complained about the noise levels at the school during school examinations	Additional monitoring carried out at school – noise levels acceptable	BH / 16 April 2002	
37	(No complaint was received in May 2002)					
38	(No complaint was received in June 2002)					
39	(No complaint was received in July 2002)					
40	(No complaint was received in August 2002)					
41	(No complaint was received in September 2002)					
42	N/A	Principal at Lui Ming Choi Secondary School	Headmaster at Lui Ming Choi School contacted KCRC/MCAL and complained about the noise levels at the school during the day	MCAL carried out additional monitoring at school JV supervisors to ensure noisy bolting activities kept to a minimum	11 October 2002	
43	1 Nov 2002	N/A	EPD received complaint information from police about noise nuisance near Ho Pong St during early morning restricted hours	Checked work activities on the day in question – no work being carried out in the early morning hours construction to ensure no noise nuisance when carrying out night works and compliance with valid CNP	Ongoing	
44	7 Nov 2002	N/A	EPD received complaint information from police about noise nuisance near Ho Pong St during early morning restricted hours	Checked work activities on the day in question – no work being carried out in the early morning hours construction to ensure no noise nuisance when carrying out night works and compliance with valid CNP	Ongoing	
45	(No complaint was received in December 2002)					
46	(No complaint was received in January 2003)					
48	(No complaint was received in February 2003)					
49	(No complaint was received in March 2003)					

No.	Date Received	Complainant	Details of the Complaint	Action	Completion Date	Remark
50			(No complaint was received in April 2003)			
51			(No complaint was received in May 2003)			
52			(No complaint was received in June 2003)			

APPENDIX F MONITORING SCHEDULE FOR THE NEXT THREE MONTHS

Table A - Air Quality and Noise Monitoring

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
18/51 Tuen Mun Dental Clinic	■	□				
18/60 Mai Kei Mansion	□					
18/63 St. Simon Lui Ming Choi Sec. School	□					■
18/69 Koon Hing Building	□					
18/74 Kam Wah Garden	□					
18/76 Tuen Mun Town Park						■

■ Air Quality Monitoring

□ Noise Monitoring

Table B - Water Quality Monitoring

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
U11	○		○		○	
D11	○		○		○	

○ Water Quality Monitoring

Note: If the monitoring date is scheduled on a holiday, the monitoring will be re-schedule to carry out on the next working day.

APPENDIX G COMMENTS AND RESPONSES

Department / Company Name	Reference	Date	Date received by
From HK ACE JV to Hyder From KCRC to HK ACE JV	<u>Comment on May 03 EM&A Report</u> CC0212&CC0213/CON001/F/29147 /	2 July 03 /	3 July 03 /

No specific comment for May 03 EM&A report was issued by KCRC/IEC.

APPENDIX H SUMMARY OF EPD PERMITS/LICENCES FOR THE PROJECT

EPD ref. No.	EPD's notification of application dated	Permit no.	Permit time constraint	Permit valid from / to	Works required	Status
Environmental Permits/Licences						
N/A	N/A	EP-004/1998	N/A	N/A	EP for West Rail Phase I – KCRC Permit	Superseded
N/A	N/A	EP-004/1998/B	N/A	N/A	Variation for EP for West Rail Phase I – (KCRC Permit)	Superseded
N/A	N/A	EP-004/1998/C	N/A	N/A	Variation of EP for West Rail Phase I – (KCRC Permit)	Superseded
N/A	N/A	EP-004/1998/D	N/A	N/A	Variation of EP for West Rail Phase I – (KCRC Permit)	Superseded
N/A	N/A	EP-004/1998/E	N/A	N/A	Variation of EP for West Rail Phase I – (KCRC Permit)	Superseded
N/A	N/A	EP-004/1998/F	N/A	N/A	Variation of EP for West Rail Phase I – (KCRC Permit)	Valid
N/A	N/A	VEP-020/2000/A/EP-004	N/A	N/A	Variation of EP for West Rail Phase I – KCRC Permit	Superseded
N/A	N/A	EP-033/1999	N/A	Permit holder notify EPD 4 weeks prior to commencement and completion	EP for Essential Public Infrastructure Works – KCRC Permit	Superseded
N/A	N/A	EP-033/1999/B	N/A	Permit holder notify EPD 4 weeks prior to commencement and completion	EP for Essential Public Infrastructure Works – KCRC Permit	Valid
N/A	N/A	VEP-023/2000/A/EP-033	N/A	N/A	Variation of EP for Essential Public Infrastructure Works – KCRC Permit	Valid
Ax. (10) EP2/G/A/95	N/A	FEP-010/004/199	N/A	Notify EPD one week prior to commencement	FEP fir CC213- Tuen Mun Station (JV Permit)	Valid

EPD ref. No.	EPD's notification of application dated	Permit no.	Permit time constraint	Permit valid from / to	Works required	Status
		9				
AX (8) to EP2/G/A/94	N/A	FEP-02/33/2000	N/A	Notify EPD one week prior to commencement & completion	FEP for Essential Public Infrastructure Works (JV Permit)	Valid
Construction Noise Permit (CNP)						
TW 990654-001, EP941/ND4/TW0271-99	30 th Sept. 1999	GW-TW0271-99	General holiday including Sundays 0700-2300 and any day not being a general holiday 1900-2300	Permit valid to 30 th Apr. 2000	earth dam construction	Expired
TW 990697-001, EP941/N04/TW0294-99	11 th Oct. 1999	Refuse to grant	N/A	N/A	concreting (bored piles)	Refuse to grant
TW990695-001, EP941/N04/TW0292-99	11 th Oct 1999	Refuse to grant	N/A	N/A	Concreting	Refused to grant
TW 990722-001, EP941/ND4/TW0306-99	19 th Oct.	GW-TW0306-99	different time constraints – see Permit conditions	Permit valid to 30 th Apr. 2000	earth dam dewatering	Expired
TW990885-001, EP942/N04/TW0072-99			1240-1340 and 1630-1830 on any day not being a general holiday	2 nd January to 1 st April 2000	percussive piling	Expired
TW 990885-001, EP942/N04/TW0073-99	14 th Dec. 1999	PP-TW0073-99	0800-0900 hours, 1200-1400 hours and 1700-1900 hours in weekday only	8 th Jan – 8 th Jun. 2000	percussive piling	Expired
TW990887-001, EP942/N04/TW0074-99	14 th December 1999	PP-TW0074-99	12:00-13:00 and 17:00-19:00 on any day not being a general holiday	6 th January to 8 th July 2000	Percussive Piling	Expired
TW 990879-001, EP941/N04/TW0371-99	N/A	Refuse to grant	N/A	N/A	concreting (bored piles)	Refuse to grant
EP941/N04/TW0028-00	22 nd Jan 2000	GW-TW0028-00	General holiday including Sundays 0700-2100 and any day not being a general holiday 1900-2100	18 th February to 8 th April 2000	bored piling (RCD, soil mec)	Expired
EP941/N0470029-00	22 nd Jan 2000	Refuse to grant	N/A	N/A	concreting (bored piles)	Refuse to grant

EPD ref. No.	EPD's notification of application dated	Permit no.	Permit time constraint	Permit valid from / to	Works required	Status
TW20000177-001	14 th Mar 2000	GW-TW0103-00	between 2100-0700 hours the next day	27 th Apr. – 28 th Apr. 2000	erecting signage on Tuen Mun Road at Tsing Hang Path	Expired
TE20000206-001, EP941/N04/TW115-00	18 th Mar 2000	GW-TW0115-00	Any day between 2000-0600 hours on the next day	15 th May to 0600 on 21 st May 2000	Pui To Road Footbridge Demolition (steelwork erection only)	Expired
TW20000197-001	17 th Mar 2000	GW-TW0112-00	General holiday including Sundays 0700-2300 and any day not being a general holiday 1900-2300	15 th Apr. – 30 th Sept. 2000	bored piling (RCD auger) at San Fat LRT	Expired
TW20000196-001	17 th Mar 2000	Refuse to grant	N/A	N/A	concreting (bored piles) at San Fat LRT	Refuse to grant
TW20000310-001 (4) in EP491/N04/TW0180-00	20 th Apr. 2000	GW-TW0180-00	General holiday including Sunday 0700-1900	21 st Apr. to 24 th Apr. 2000	Removal of dam and access road	Expired
TW20000218-001, in EP941/N04/TW0126-00	21 st Mar 2000	GW-TW0128-00	General holiday including Sundays 0700-2300 and any day not being a general holiday 1900-2300	19 th April to 4 th October 2000	bored piling (RCD, auger)	Expired
TW20000219-001	21 st March 2000	Refuse to grant	N/A	N/A	concreting (bored piles)	Refuse to grant
TW20000398-001 EP941/N04/TW0220-00 (submission dates: 9 th , 12 th and 17 th of May 2000)	17 th May 2000	GW-TW0220-00	0001 hour to 0600 hour on the days in question	26 th May, 29 th to 31 st May and 8 th June to 14 th June 2000	Pui To Road Footbridge Demolition (steelworks erection only)	Expired
TW20000398-001 EP941/N04/TW0264-00	5 th June 2000		N/A	N/A	Pui To Road Footbridge demolition (cutting and removing bridge deck)	Expired
Not required	16 th June 2000			As commented by the EPD, CNP not required for this, can be carried out anytime	Percussive piling for extraction of H piles at Pui To Road	Cancelled
TW20000473-001	21 st June 2000	Refuse to	N/A	N/A	Mobilising of piling	Refused to grant

EPD ref. No.	EPD's notification of application dated	Permit no.	Permit time constraint	Permit valid from / to	Works required	Status
EP941/N04/TW0264-00		grant			equipment at Ho Ping St.	
N/A	TCL Piling Specialists Ltd. Submitted application form directly to EPD	PP-TW0042-00	12:20 hour to 13:20 hour and 17:00 hour to 19:00 hour on any day not being a general holiday	14 th June to 1 st August 2000	Percussive piling using drop hammer driving steel/concrete pile	Expired
TW2000218-001, (4) in EP941/N04/TW0126-00	21 st March 2000	GW-TW126-00	General Holiday including Sundays 07:00-23:00 and any day not being general holiday 19:00-23:00 hours	19 th April to 4 th October 2000	Bored piling (mobile RCD, soil mec)	Expired
TW2000356-001, EP941/N04/TW0199-00	4 th May 2000	Refuse to grant	N/A	N/A	Concreting	Refused to grant
TW20000442-001, EP942/N04/TW0043-00	5 th June 2000		N/A	N/A	Renewal of CNP: PP-TW0074-99, percussive piling	Refused to grant
TW20000441-001, EP941/N04/TW0245-00	5 th June 2000	GW-TW0245-00	Any day not being a general holiday between 0001 hours to 0600 hours	29 th June – 20 th July 2000	Pui To Road Footbridge Demolition (placing more steel beams over LRT)	Expired
TW20000519-001, EP941/N04/TW0285-00	10 th July 2000	N/A	N/A	N/A	Pui To Road Footbridge Demolition (crane, generator, cutting saw)	Expired
TW20000524-001, EP941/N04/TW0289-00	11 th July 2000	Refused to grant	N/A	N/A	Mobilising of Piling Equipment at San Fat LRT	Refused to grant
TW20000540-001, EP941/N04/TW0298-00	19 th July 2000	Refused to grant	N/A	EPD commented, no CNP required for this as long as generator only used for providing permanent power	Power for Ho Pong St streetlights – generator	Refused to grant
TW20000523-001, EP941/N04/TW0300-00	20 th July 2000	N/A	N/A	N/A	Reapplied – Mobilising of Piling Equipment at Ho Pong St.	Refused to grant
TW20000591-001, EP941/N04/TW0326-00	28 th July 2000	GW-TW0326-00	Any day not being a general holiday between 0001 hours to 0600 hours	25 th Aug – 24 th Sep 2000	Pui To Road Footbridge Demolition (crane, generator)	Expired

EPD ref. No.	EPD's notification of application dated	Permit no.	Permit time constraint	Permit valid from / to	Works required	Status
TW20000592-001, EP941/N04/TW0327-00	28 th July 2000	N/A	N/A	N/A	Dam construction within the Tuen Mun nullah	Refused to grant
EP941/N04/TW0206-00	N/A	Refused to grant	N/A	N/A	Remedial works to bored piles	Refused to grant
EP941/N04/0029-00	22 nd January 2000	Refused to grant	N/A	N/A	Concreting (bored piles)	Refused to grant
TW20000473-001, EP941/N04/TW0264-00	N/A	Refused to grant	N/A	N/A	Mobilising of Piling Equipment at Ho Pong St.	Refused to grant
TW20000543-001, EP941/N04/TW0300-00	20 th July 2000	Refused to grant	N/A	N/A	Reapplied – Mobilising of Piling Equipment at Ho Pong St.	Refused to grant
TW20000592-001, EP941/N04/TW0327-00	28 th July 2000	Refused to grant	N/A	N/A	Dam construction within the Tuen Mun nullah	Refused to grant
TW20000519-001, EP941/N04/TW0285-00	10 th July 2000	GW- TW0285-00	Any day between 0001 – 0600	1 st August 2000 to 20 th August 2000	Pui To Road Footbridge Demolition (crane, generator)	Expired
TW20000662-001, EP941/N04/TW0370-00	23 rd August 2000	GW- TW0370-00	Monday – Saturday (except holidays) 0100 hour to 0600 hour	8 th Sep – 17 th Sep 2000	Pui To Road Footbridge Demolition (crane, generator, cutting saw)	Expired
TW20000618-001, EP941/N04/TW0344-00	7 th August 2000	GW- TW0344-00	General Holiday including Sundays 07:00-0700 on the next day and any day not being general holiday 19:00-07:00 hours on the next day	10 th Sep – 9 th Mar 2001	Dewatering dam within the Tuen Mun nullah	Expired
TW20000666-001, EP941/N04/TW0374-00	25 th August 2000	Refused to grant	N/A	N/A	EVA access widening at San Fat LRT (breaker, air compressor)	Refused to grant
No required	N/A	N/A	N/A	N/A	Percussive piling for extraction of H piles at Pui To Road	Expired
TW20000698-001, EP941/N04/TW0395-00	8 th September 2000	Refused to grant	N/A	N/A	Bored piling (grab/chisel, crane, oscillator, generator,	Refused to grant

EPD ref. No.	EPD's notification of application dated	Permit no.	Permit time constraint	Permit valid from / to	Works required	Status
EP941/N04/TW0395-00		grant			RCD)	
TW20000699-001, EP941/N04/TW0395-00	8 th September 2000	Refused to grant	N/A	N/A	Bored piling (grab/chisel, crane, oscillator, generator, RCD)	Refused to grant
TW2000701-001, EP941/N04/TW0396-00	8 th September 2000	Refused to grant	N/A	N/A	Bored piling (grab/chisel, crane, oscillator, generator, RCD)	Refused to grant
TW2000701-001, EP941/N04/TW0398-00	8 th September 2000	Refused to grant	N/A	N/A	Bored piling (grab/chisel, crane, oscillator, generator, RCD)	Refused to grant
TW20000697-001, EP941/N04/TW0394-00	8 th September 2000	GW- TW0394-00 cancelled	Monday to Saturday 1900 hour to 2300 hour and General holiday (including Sundays) 0700 to 2300 hour	30 th Sep 00 to 15 th Nov 00, cancelled	Reapplication for dam construction within the Tuen Mun nullah	Cancelled
TW20000756-001, EP941/ND4/TW0434-00	26 th September 2000				Ho Tin LRT level crossing work (concrete lorry mixer)	Refused to grant
TW2000757-001, EP941/N04/TW0435-00	26 th September				San Fat LRT EVA reprovisioning work (electric hand held breaker, excavator, dump truck)	Refused to grant
TW20000758-001, EP941/N04/TW0436-00	26 th September 2000	GW- TW0435-00	0001-0700 hours	5 th October 00	Pul To Road Footbridge Demolition (crane, generator)	Expired
TW20000783-001, EP941/N04/TW0451-00 cancelled by EPD on 14 th Feb 01	7 th October 2000	GW- TW0451-00 cancelled	Monday to Sunday (except holidays) 1900 hour to 2300 hours and General holidays (including Sundays) 0700 hour to 2300 hour	6 th Nov 2000 – 5 th May 2001	Reapplication for bored piling within the nullah (RCD, generator)	Cancelled
TW20000785-001, EP941/N04/TW0453-00 cancelled by EPD on 14 th Feb 01	7 th October 2000	GW- TW0453-00 cancelled	Monday to Sunday (except holidays) 1900 hour to 2300 hours and General holidays (including Sundays) 0700 hour to 2300 hour	6 th Nov 2000 – 5 th May 2001	Reapplication for bored piling within the nullah (RCD, generator)	Expired
TW20000784-001,	7 th October 2000	GW-	Monday to Sunday (except	6 th Nov 2000 – 5 th May	Reapplication for bored	Expired

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EP941/N04/TW0452-00		TW0452-00	holidays) 1900 hour to 2300 hours and General holidays (including Sundays) 0700 hour to 2300 hour	2001	pilling within the nullah (RCD, generator)	
TW2000032-001, EP941/N04/TW0476-00	20 th October 2000				Prescribed Construction Work	Refused to grant
TW20000DB69-001, EP941/N04/TW0492-00	27 th October 2000, withdrawal fax 21 st November 2000	withdrawn	N/A	N/A	Reapplication for Ho Tin LRT level crossing work (crane truck and concrete lorry mixer)withdrawn	Refused to grant
TW20000905-001, EP941/N04/TW0516-00	8 th November 2000				Delivery of precast units at Ho Tin level crossing to Choy Yee Bridge (mobile crane, low loader, generator (ss))	Refused to grant
TW20000910-001, EP941/ND4/TW0520-00	9 th November 2000				Lifting sheet piles over LRT tracks. Ho Tin level crossing	Withdrawn
TW20000936-001, EP941/ND4/TW0533-00	15 th November 2000				San Fat LRT EVA reprovisioning work (electric hand held breaker, excavator, dump truck)	Withdrawn
PP-TW0077-00	13 th November 2000	PP- TW0077-00	1230 hour to 1400 hour and 1530 hour to 1900 hour on any day not being a general holiday	15 th Dec 2000 – 15 th Apr 2001	Percussive pilling along LRT tracks – adjacent to Ho Tin Station	Expired
N/A	30 th November 2000	GW- TW0545-00	Monday to Saturday (except holidays) 1900 hour to 2300 hour and any holiday (including Sundays) 0700 hour to 2300 hour.	24 th Dec 2000 – 23 rd Jun 2001	Concreting bored piles (concrete lorry mixer, generator, crane, water pump)-Gammon gear	Expired
TW20000975-001, EP941/N04/TW0553-00	6 th December 2000	N/A	N/A	N/A	Bored piling between Pui to Road and LRT tracks (crane, grab, generator (ss))	Refuse to grant
TW20000998-001, EP941/N04/TW0565-00	12 th December 2000	withdrawn	N/A	N/A	Modification of intersection of Pui To Road/Ho Pong	Withdrawn

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					Street (excavator, hank held breaker, air compressor, generator)	
TW20001026-001, EP941/N04/TW0582-00	22 nd December 2000	Refuse to grant	N/A	N/A	Reapplication for delivery of precast units at Ho Tin level crossing to Choy Yee Bridge (mobile crane, generator (ss), flat bed truck)	Refuse to grant
Application by VSL (12 th December 2000)		Refuse to grant			Application by VSL, for viaduct work including delivery, stressing, launching etc.	Refuse to grant
TW20010022-001, EP941/N04/TW0012-01	8 th January 2001	Refuse to grant	N/A	N/A	Reapplication bored piling between Pui To Road LRT tracks (crane, grab, generator (ss))	Refuse to grant
TW20010071-001, EP941/N04/TW0035-01	16 th January 2001	Refuse to grant	N/A	N/A	Excavation work between Pui To Road and San Fat LRT bridge (24hours work)	Refuse to grant
TW20010088-001, EP941/N04/TW0043-01	23 rd January 2001	Refuse to grant	N/A	N/A	Reapplication for delivery of precast units at Ho Tin level crossing to Choy Yee Bridge (mobile crane, generator (ss), flat bed truck)	Refuse to grant
N/A (1 st February 01)	N/A	N/A	N/A	N/A	Application by VSL for parapet erection adjacent to LRT track (Choy Yee bridge)	Assume not granted
TW20010127-001, EP941/N04/TW0063-01	9 th February 2001	GW-TW0063-01	Any day between 2100 to 0700 hours on next day	13 th March 2001 to 12 th April 2001	Demolition of Pui To Road West footbridge (crane, crane truck)	Expired
TW20010126-001, EP941/N04/TW0064-01	9 th February 2001	GW-TW0064-01	Monday to Saturday (except holidays) 1900 hour to 2300 hour and General holiday (including Sundays) 0700	10 th March 2001 to 30 th April 2001	Renewal of dewatering dam permit GW-TW0344-00 (4 water pump submersible (electric))	Expired

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			hour to 2300 hour			
TW20010138-001, EP941/N04/TW0073-01	14 th February 2001	GW- TW0073-01	Monday to Saturday (except holidays) 1900 hour to 2300 hour and General holiday (including Sundays) 0700 hour to 2300 hour	8 th March 2001 to 4 th September 2001	Six tower cranes – 7:00pm-11:00pm	Expired
15 th February 2001, withdrawn fax 10 th March 2001	N/A	N/A	N/A	N/A	Reapplication for intersection modification work at Ho Pong St/Pui To Road (air compressor, excavator, breaker, generator)	Withdrawn
TW20010164-001, EP941/N04/TW0087-01	22 nd February 2001	GW- TW0087-01	Monday to Saturday (except holidays) 1900 hour to 2300 hour and General holiday (including Sundays) 0700 hour to 2300 hour	14 th March 2001 to 9 th May 2001	Reapplication for excavation work and substructure work between Pui To Road and San Fat LRT bridge	Expired
TW20010175-001, EP941/N04/TW0094-01	26 th February 2001	GW- TW0094-01	Monday to Saturday (except holidays) 1900 hour to 2300 hour and any holidays (including Sundays) 0700 hour to 2300 hour	24 th March 2001 to 30 th April 2001	Removal of dam (mobile crane, crane truck, excavator)	Expired
(23 rd February 2001)	N/A	GW- TW0104-01	Any day 2300 hour to 0700 hour on next day	31 st March 2001 to 15 th June 2001	Erection of parapet adjacent to LRT tracks (North of Choy Yee bridge)	Expired
TW20010197-001, EP941/N04/TW0112-01	7 th March 2001	N/A	N/A	N/A	Concreting superstructure – GL 1 to 29, concrete lorry mixer, poker vibrators, pump truck	Expired
Assume TW20010155-001, EP941/N04/TW0083-01	Assume 20 th February 2001	Withdrawn	16 th March 2001	N/A	Reapplication for intersection modification work at Ho Pong St/Pui To Road (air compressor, excavator, breaker, generator)withdrawn	Refused to Grant
TW20010224-001,	16 th March 2001	GW-	Any day between 2100 to	18 th April 2001 to 17 th	Renewal of Pui To Rd West	Expired

EPD ref. No.	EPD's notification of application dated	Permit no.	Permit time constraint	Permit valid from / to	Works required	Status
EP941/N04/TW0128-01		TW0128-01	0700 hours on next day	May 2001	f/b demolition CNP no. GW-TW0063-01	
TW20010223-001, EP941/N04/TW0127-01	16 th March 2001	N/A	N/A	N/A	Renewal of cofferdam north of Choy Yee Bridge (excavator, crane truck)	Refuse to grant
TW20010253-001, EP941/N04/TW0142-01	23 rd March 2001	N/A	N/A	N/A	VSL: work at Easter time including launching girder, segment carrier, hydraulic pump etc.	Refuse to grant
TW20010262-001, EP941/N04/TW0148-01	27 th March 2001	N/A	N/A	N/A	Sewer diversion works in Pui To Road adjacent to San Fat LRT.	Refuse to grant
(26 th March 2001)	N/A	N/A	N/A	N/A	Segment erection over Choy Yee Bridge (VSL work)	Expired
TW20010273-001, EP941/N04/TW0152-01	29 March 2001	GW-TW0152-01	Any day (including Sundays) 2300 hour to 0700 hour on next day	9 May 2001 to 14 June 2001	Segment erection over Choy Yee bridge (VSL work)	Expired
TW20010328-001, EP941/N04/TW0177-01	12 April 2001	GW-TW0177-01	Monday to Saturday (except holidays) 1900 hour to 2300 hour and General holidays (including Sundays) 0900 hour to 2300 hour	29 th April 2001 to 27 th October 2001	Bored pilling on the West bank, Pier 74 bored piling equipment	Expired
TW20010348-001, EP941/N04/TW0190-01	19 April 2001	GW-TW0190-01	Any day between 2300 to 0700 hours on next day	16 th May 2001 to 15 th June 2001	Renewal of Pui To Rd West t/b demolition CNP no.: GW-TW0128-01	Expired
TW20010349-001, EP941/N04/TW0191-01	19 April 2001	GW-TW0191-01	Any day 1900 hours to 2300 hours	17 th May 2001 to 16 th June 2001	Reapplication for sewer diversion work in Pui To Road adjacent to San Fat LRT Station	Expired
TW20010377-001, EP941/N04/TW0197-01	25 th April 2001	Refused to grant	N/A	N/A	LRT modification works San Fat LRT Station	Refused to Grant
TW20010466-001, EP941/N04/TW0230-01	16 th May 2001	Withdrawn	N/A	N/A	Renewal of segment erection over Choy Yee bridge CNP no. GW-TW0152-01	Refused to Grant

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					no. GW-TW0152-01	
TW20010487-001, EP941/N04/TW0231-01	16 th May 2001	Gw- TW0231-01	Monday to Saturday (except holidays) 7:00pm to 11:00pm and General holidays (including Sundays) 9:00am to 11:00pm	12 th June 2001 to 11 th December 2001	Use of circular saw within the station area	Expired
TW20010468-001, EP941/N04/TW0232-01	16 th May 2001	GW- TW0232-01	Any day (including Sundays) 2300 hour to 0700 hour on next day	15 th June 2001 to 14 th July 2001	Renewal of segment erection over Choy Yee bridge (VSL work) CNP no. GW-TW0152-01	Expired
TW20010467-001, EP941/N04/TW0121-01	16 th May 2001	GW- TW0231-01	Monday to Saturday (except holidays) 7:00 pm to 11:00 pm and General holidays (including Sundays) 9:00am to 11:00pm	12 th June 2001 to 11 th December 2001	Use of 4 circular saws within the station area	Expired
TW20010498-001, EP941/N04/TW0241-01	25 th May 2001	GW- TW0241-01	Any day between 2300 to 0700 hours on next day	16 th June 2001 to 15 th August 2001	Renewal to Pui To Rd West demolition CNP no. GW-TW0190-01	Expired
TW20010528-001, EP941/N04/TW0252-01	1 st June 2001	GW- TW0252-01	Monday to Saturday (except holidays) 19:00-23:00 hours and General holidays (including Sundays) 09:00 – 23:00 hours	17 th June 2001 to 31 st July 2001	Renewal to crawler crane south of Choy Yee bridge tidal conditions GW-TW0191-01	Expired
TW20010535-001, 941/N04/TW0257-01	4 th June 2001	N/A	N/A	N.A	Reapply San Fat LRT modification works to platforms, withdrawn	Withdrawn
TW20010560-001, EP941/N04/TW0266-01	11 th June 2001	GW- TW0266-01	Any day (including Sundays) 2300 hour to 0700 hour on next day	15 th July 2001 to 24 th August 2001	Renewal fo segment erection over Choy Yee bridge (VSL work) CNP No. GW-TW0232-01	Expired
TW20010561-001, EP941/N04/TW0267-01	11 th June 2001	GW- TW0266-01	Any day (including Sundays) 2300 hour to 0700 hour on next day	15 th July 2001 to 24 th August 2001	Renewal of CNP no. GW-TW0232-01, segment erection over Choy Yee bridge (VSL work)	Expired

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TW20010592-001, EP941/N04/TW0283-01	18 th June 2001	GW- TW0283-01	Any day (including Sundays) 2300 hour to 0700 hour on next day	10 th July 2001 to 9 th January 2002	Tower crane Fuse during LRT non-traffic hours	Expired
TW20010634-001, EP941/N04/TW0296-01	29 th June 2001	GW- TW0296-01	Monday to Saturday (except holidays) 19:00-23:00 hours and General holidays (including Sundays) 07:00- 23:00 hours	20 th July 2001 to 19 th January 2002	Bored pilling at Kin Fung Circuit	Expired
TW20010694-001, EP941/N04/TW0318-01	13 th July 2001	Withdrawn	N/A	N/A	Steel erection at Pui To Road, withdrawn	Withdrawn
TW20010716-001, EP941/N04/TW0326-01	18 th July 2001	GW- TW0326-01	Any day 23:00-07:00 hours on next day	24 th July to 15 th August 2001	Renewal of CNO no. GW- TW0267-01, CLP ductwork under Choy Yee Bridge Rd	Expired
TW20010717-001, EP941/N04/TW0325-01	18 th July 2001	GW- TW0325-01	Monday to Saturday (except holidays) 19:00-23:00 hours and General holidays (including Sundays) 09:00- 23:00	1 st to 31 st August 2001	Renewal of CNP no. GW- TW0252-01, crawler crane use south of CYB	Expired
TW20010752-001, EP941/N04/TW0342-01	28 th July 2001	GW- TW0342-01	Any day 2300 hour to C700 hour on next day	1 st September to 31 st October 2001	Dismantle/e-erect VSL launching girder Ho Pong St	Expired
	31 st July 2001	GW- TW0344-01	Monday to Saturday (except holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	5 th September 2001 to 7 th March 2002	Renewal of CNP no. GW- TW0073-01, tower crane usage (six no.)	Expired
	31 st July 2001	GW- TW0345-01	Any day 2100 hour to 0700 hour on next day	1 st September to 31 st October 2001	Erection of precast units GL29 to Pier 97-Ho Pong st	Expired
TW20010789-001, EP941/N04/TW0356-01	6 th August 2001	GW- TW0356-01, cancelled	Any day 2100 hour to 0700 hour on next day	1 st September to 30 th November 2001, cancelled	Reapplication for Erection of steel beams over Pui To Road, cancelled by JV	Cancelled by JV
TW20010803-001, EP941/N04/TW0364-01	9 th August 2001				Seat gaps between parapets adjacent to LRT track, Pier 81,82,83	Expired

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TW20010815-001, EP941/N04/TW0370-01	13 th August 2001	GW- TW0370-01	Any day 2300 hour to 0700 hour on next day	25 th August to 25 th September 2001	Renewal of CNP no. GW-TW0326-01, CLP ductwork under Choy Yee Bridge Road	Expired
TW20010816-001, EP941/N04/TW0371-01	13 th August 2001	GW- TW0371-01	Monday to Saturday (except holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	10 th September to 31 st October 2001	Dam construction within the Tuen Mun nullah	Expired
TW20010817-001, EP941/N04/TW0372-01	13 th August 2001	GW- TW0372-01	Monday to Saturday (except holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	15 th September to 31 st October 2001	Cofferdam construction between GL3 and GL29 Tuen Mun nullah	Expired
TW20010823-001, EP941/N04/TW0274-01	15 th August 2001	GW- TW0374-01	Any day 2300 hour to 0700 hour on next day	25 th August to 6 th September 2001	Renewal of CNP no. GW-TW0241-01, Pui To Rd west f/b demolition	Expired
TW20010888-001, EP941/N04/TW0412-01	31 st August 2001	GW- TW0412-01	Monday to Saturday (except holidays) 1900 to 0700 hours on next day and General holidays (including Sundays) 0700 to 0700 hours on next day	20 th September 2001 to 20 th March 2002	Water pump dewatering at main dam across the nullah, 15 no. pumps	Expired
TW20010916-001, EP941/N04/TW0421-01	7 th September 2001	Refused to grant	N/A	N/A	Parapet erection over site officers and along Ho Pong St	Refused to Grant
TW20010973-001, EP941/N04/TW0455-01	22 nd September 2001	GW- TW0455-01	General holiday including Sundays between 0700-2300 hours and any day not being a general holiday between 1900 to 2300 hours	28 th October to 31 st December 2001	Renewal of CNP no. GW-TW0176-01, concreting station structure	Expired
TW20010997-001, EP941/N04/TW0471-01	29 th September 2001	Refused to grant	N/A	N/A	Ho Pong St segment erection (VSL) – GL29-23	Refused to Grant
TW20011026-001, EP941/N04/TW0482-01	10 th October 2001	GW- TW0482-01	Any day 2100 to 7000 hours on next day	1 st November to 30 th November 2001	Renewal of CNP no. GW-TW0345-01, erection of	Expired

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					precast units – Ho Pong St	
TW20011025-001, EP941/N04/TW0483-01	10 th October 2001	GW- TW0483-01	Any day 2300 to 7000 hours on next day	1 st November to 30 th November 2001	Renewal of CNP no. GW- TW0342-01, removal of launching girder – Ho Pong St	Expired
TW20011023-001, EP941/N04/TW0484-01	10 th October 2001	GW- TW0484-01	Any day 2100 to 7000 hours on next day	5 th November 2001 to 31 st December 2001	Kin Fung Circuit - beam delivery and erection	Expired
TW20011033-001, EP941/N04/TW0486-01	11 th October 2001	GW- TW0486-01	Any day (including Sundays) 2300 to 7000 hours on next day	26 th October to 25 th December 2001	Reapplication for precast parapel unit erection along Ho Pong St North0	Expired
TW20011049-001, EP941/N04/TW0495-01	15 th October 2001	GW- TW0495-01	Any day 2300 hour to 0700 hour on next day	5 th November 2001 to 6 th January 2002	Renewal of CNP no. GW- TW0356-01, steel erection at Pui To Rd includes steel erection over LRT at San Fat LR station and LRT bridge	Expired
	14 th November 2001	GW- TW0553-01	Monday to Saturday (except holidays) 7.00 pm to 11.00 pm and General holidays (including Sundays) 7.00 am to 11.00 pm	12 th December 2001 to 11 th June 2002	Renewal of CNP no. GW- TW0231-01, circular saw use in station area.	Expired
TW20011179-001, EP941/N04/TW0557-01	15 th November 2001	GW- TW0557-01	Monday to Saturday 9except holidays) 1900 to 2100 hours and General holidays (including Sundays) 0700 to 2100 hours	1 st December 2001 to 13 th April 2002	Excavation within the nullah	Expired
	19 th November 2001	GW- TW0576-01	General holiday9including Sunday) 0700 hour to 1900 hour	1 st December 2001 to 6 th January 2002	Bolting operations on Sunday at SF LRT and PT Rd	Expired
TW20011241-001, EP941/N04/TW0598-01	28 th November 2001	N/A	N/A	N/A	Cooling watermain diversion in Pui To Road	Refused to grant
TW20011257-001, EP941/N04/TW0601-01	30 th November 2001	GW- TW0601-01	Any day 2100 hour to 0700 hour on next day	1 st January to 14 th February 2002	Renewal of CNP no. GW- TW0484-01, precast delivery and crection – King Fung Circuit.	Expired

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TW20011256-001, EP941/N04/TW0600-01	30 th November 2001	GW- TW0600-01	General holiday including Sunday between 0700 – 2300 hours and any day not being a general holiday between 1900 – 2300 hour	1 st January to 31 st March 2002	Renewal of CNP no. GW-TW0455-01, concreting station structure.	Expired
TW20011276-001, EP941/N04/TW0607-01	5 th December 2001	GW- TW0607-01	Any day including Sunday between 2300 hour and 0700 hour the next day	9 th January to 30 th June 2002	Renewal of CNP no. GW-TW0283-01 tower crane "F" use – non-traffic LRT	Expired
TW20011286-001, EP941/N04/TW0610-01	10 th December 2001	GW- TW0610-01	Any day between 2100 to 0700 hours on next day (group A). General holiday (including Sunday) between 0700 to 1900 hours (group B)	6 th January to 31 st March 2002	Renewal of CNP nos. GW-TW0495-01, GW-TW00576-01, steelwork erection PTR, SF LRT, LRT bridge	Expired
TW20011351-001, EP941/N04/TW0630-01	22 nd December 2001	N/A	N/A	N/A	Concreting northern access ramp deck from Kin Fung Circuit – over LRT	Refused to grant
TW20011352-001, EP941/N04/TW0631-01	22 nd December 2001	N/A	N/A	N/A	Concreting encasement of structural steel beams over LRT-SF LRT	Refused to grant
TW20011376-001, EP941/N04/TW0635-01	28 th December 2001	N/A	N/A	N/A	Widening of Ho Tin level crossing	Refused to grant
TW20020128, EP941/N04/TW0041-02	31 st January 2002	Refused to grant	N/A	N/A	Concreting beams over LRT, PTR	Refused to grant
TW20020167, EP941/N04/TW0056-02	9 th February 2002	GW- TW0056-02	Any day 2300 hour to 0700 hour on next day	5 th March to 4 th April 2002	Concreting deck for access over LRT to station, KFC	Expired
TW20020204, EP941/N04/TW0072-02	25 th February 2002	GW- TW0072-02	Monday to Saturday (expect holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	8 th March to 7 th September 2002	Renewal of CNP no. GW-TW0344-01, tower cranes, 6 no.	Expired
TW20020205, EP941/N04/TW0073-02	25 th February 2002	GW- TW0073-02	Monday to Saturday (expect holidays) 1900 to 0700 hours on next day and General holidays (including Sundays)	21 st March to 30 th April 2002	Renewal of CNP no. GW-TW0412-01, dewatering dam across nullah 15 no. pumps	Expired

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			0700 to 0700 on next day			
TW2000271, EP941/N04/TW0091-02	9 th March 2002	GW- TW0091-02	Any day between 2100 to 0700 hours on next day	8 th to 20 th April 2002	Renewal of CNP no. GW-TW0610-01, steel erection at PTR/SF LRT	Expired
TW20020289, EP941/N04/TW0098-02	12 th March 2002	GW- TW0098-02	One day only between 1900 to 2300 hours	27 th March to 25 th April 2002	Cooling watermain diversion in Pui To Road	Expired
TW20020298, EP941/N04/TW0100-02	13 th March 2002	GW- TW0100-02	Any day 2300 hour to 0700 hour on next day	5 th April to 31 st May 2002	Renewal of CNP no. GW-TW0056-02, bridge deck over LRT – KFC	Expired
TW20020322, EP941/N04/TW0106-02	20 th March 2002	GW- TW0106-02	General holiday including Sundays 0700-2300 hours and any day not being a general holiday 1900-2300 hours	19 th April to 30 th June 2002	Renewal of CNP No. GW-TW00600-01, concreting overrun structure and west nullah slab	Expired
TW20020346, EP941/N04/TW0111-02	25 th March 2002	GW- TW0111-02	Monday to Saturday (except holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	14 th April to 13 th June 2002	Renewal of CNP no. GW-TW0557-01, excavation under the station area with the nullah	Expired
TW20020408, EP941/N04/TW0124-02	10 th April 2002	GW- TW0124-02	Any day between 2100 and 0700 hours on the next day	21 st April to 31 st May 2002	Renewal of CNP no. GW-TW0091-02, precast plant install, PTR-SF LRT	Expired
TW20020543, EP941/N04/TW0159-02	9 th May 2002	Withdrawn	N/A	N/A	RCD – bored pilling at entrance 'D' – withdrawn	Withdrawn
TW20020544, EP941/N04/TW160-02	9 th May 2002	Withdrawn	N/A	N/a	Concreting large diameter bored piles at entrance 'D' – withdrawn	Withdrawn
TW20020545, EP941/N04/TW0161-02	9 th May 2002	GW- TW0161-02	Monday to Saturday (except holidays) 2300 to 0700 on next day and General holidays (including Sundays) 2300 to 0700 hours on next day	1 st June to 31 st August 2002	Renewal of CNP no. GW-TW0100-02, bridge deck over LRT-KFC	Expired
TW20020561, EP941/N04/TW0167-02	14 th May 2002	GW- TW0167-02	Any day between 2300 to 0700 hours on next day	1 st June to 31 st July 2002	Renewal of CNP No. GW-TW0124-02,	Expired

EPD ref. No.	EPD's notification of application dated	Permit no.	Permit time constraint	Permit valid from / to	Works required	Status
					falsework/formwork over LRT-PTR	
TW20020574, EP941/N04/TW0173-02	17 th May 2002	GW- TW0173-02	Any day 2300 hour to 0700 hour on next day	12 th June to 15 th July 2002	Renewal of CNP no. GW-TW0610-01 steel erection at SF LRT	Expired
TW20020647, EP941/N04/TW0186-02	30 th May 2002	GW- TW0186-02	Monday to Saturday (expect holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	27 th June to 31 st October 2002	Renewal of CNP no. GW-TW0111-02, excavation under the station area within the nullah	Expired
TW20020648, EP941/N04/TW0187-02	30 th May 2002	GW- TW0187-02	Monday to Saturday (expect holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	27 th June to 30 th November 2002	Renewal of CNP no GW-TW0553-01, circular saw and bar bender in station	Expired
TW20020677, EP941/N04/TW0193-02	4 th June 2002	GW- TW0193-02	General holiday needing Sunday between 0700 to 2300 hours and any day not being a general holiday between 1900 to 2300 hours	1 st July to 15 th November 2002	Renewal of CNP no. GW-TW0105-02, concreting in different areas of the station structure	Expired
TW20020678, EP941/N04/TW0194-02	4 th June 2002	GW- TW0194-02	Any day (including Sundays) 2300 hour to 0700 hour on next day	1 st July to 31 st December 2002	Renewal of CNP no GW-TW0607-02, tower crane F during LRT NTH	Expired
TW20020579, EP941/N04/TW0195-02	4 th June 2002	GW- TW0195-02	Any day not being a general holiday between 2300 hours and 0700 hours on next day	26 th June to 6 July 2002	Tower crane erection within Ho Pong St north – adjacent to LMCSS	Expired
TW20020816, EP941/N04/TW0236-02	5 th July 2002	GW- TW0236-02	Any day 2300 hour to 0700 hour on next day	15 th July to 10 th September 2002	Renewal of CNP no. GW-TW0173-02, steel erection at SF LRT	Expired
TW20020819, EP941/N04/TW0237-02	6 th July 2002	GW- TW0237-02	Any day not being a general holiday between 2300 hours and 0700 hours on the next day	15 th to 31 st July 2002	Renewal of CNP no. GW-TW0195-02, tower crane erection at HPS	Expired
TW20020828,	9 th July 2002	Gw-	Monday to Saturday (except	28 th July to 30 th	Tower crane use within HPS	Expired

EPD ref. No.	EPD's notification of application dated	Permit no.	Permit time constraint	Permit valid from / to	Works required	Status
EP941/N04/TW0242-02		TW0242-02	holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	September 2002		
TW20020832, EP941/TW0244-02	10 th July 2002	GW-TW0244-02	Any day between 2300 to 0700 hours on next day	1 st August to 30 th November 2002	Renewal of CNP no GW-TW0167-02, falsework/formwork over LRT-PTR	Expired
TW20020966, EP941/N04/TW0286-02	14 th August 2002	GW-TW0286-02	Monday to Saturday (except holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	8 th September to 15 th December 2002	Renewal of CNP no. GW-TW0072, tower crane use at TMS – 3 no. only	Expired
TW20020993, EP941/N04/TW0296-02	22 nd August 2002	GW-TW0296-02	Monday to Saturday (except holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	10 th September to 31 st October 2002	Dam construction within the Tuen Mun nullah	Expired
TW20021036, EP941/N04/TW0306-02	31 st August 2002	Refused to grant	N/A	N/A	Tower crane use adjacent to Tsing Yin St	Refused to grant
TW20021080, EP941/N04/TW0315-02	6 th September 2002	GW-TW0315-02	Monday to Saturday (except holidays) 1900 to 0700 hours on next day and General holidays (including Sundays) 0700 to 0700 hours on next day	25 th September 2002 to 31 st March 2003	Renewal of CNP no. GW-TW0073-02, dewater dam in TM nullah –15 no pumps	Expired
TW20021061, EP941/N04/TW0315-02	6 th September 2002	GW-TW0316-02	Monday to Saturday (except holidays) 2300 to 0700 on next day and General holiday (including Sundays) 2300 to 0700 hours on next day	18 th September to 15 th November 2002	Renewal of CNP no. GW-TW0161-02, bridge deck over LRT – KFC	Expired
TW20021076, EP941/N04/TW0322-02	11 th September 2002	GW-TW0322-02	Any day 2300 hour to 0700 hour on next day	30 th September to 22 nd November 2002	Renewal of CNP no. GW-TW0236-02, steel erection and miscellaneous activities over SF LRT	Expired

EPD ref. No.	EPD's notification of application dated	Permit no.	Permit time constraint	Permit valid from / to	Works required	Status
TW20021077, EP941/N04/TW0323-02	11 th September 2002	GW- TW0323-02	Any day not being a general holiday between 1900hours and 2300 hours and general holidays (including Sundays) between 0700-2300 hours	7 th October 2002 to 5 th April 2003	Station area – Global CNP	Expired
TW20021086, EP941/N04/TW0325-02	13 th September 2002	GW- TW0325-02	Any day not being a general holiday between 2300 hours and 0700 hours on the next day	23 rd September to 10 th October 2002	Renewal of CNP no. GW-TW0237-02, tower crane erection in Ho Pong St	Expired
TW20021087, EP941/N04/TW0326-02	13 th September 2002	GW- TW0326-02	Monday to Saturday (except holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	1 st October to 15 th December 2002	Renewal of CNP no. GW-TW0242-02, tower crane use in Ho Pong St	Expired
TW20021099, EP941/N04/TW0331-02	17 th September 2002	GW- TW0331-02	Monday to Saturday (except holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	1 st October to 31 st December 2002	Painting steel structure at southern end of TMS	Expired
TW20021230, EP941/N04/TW0373-02	9 th October 2002	GW- TW0373-03	Monday to Saturday (except holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	1 st November 2002 to 31 st March 2003	Renewal of CNP no. GW-TW0185-02, excavation under the station area within the nullah	Expired
TW20021231, EP941/N04/TW0374-02	9 th October 2002	GW- TW0374-02	Monday to Saturday (except holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	1 st November to 31 st December 2002	Renewal of CNP no. GW-TW0296-02, dam construction southern end within the TM nullah	Expired
TW20021292, EP941/N04/TW0387-02	25 th October 2002	GW- TW0387-02	General holiday including Sundays 0700-2300 hours and any day not being a general holiday 1900-2300 hours	16 th November 2002 to 25 th April 2003	Renewal of CNP no. GW-TW0193-02, concreting works during dry season	Expired
TW20021302,	28 th October 2002	GW-	Any day 2300 hour to 0700	23 rd November 2002 to	Renewal of CNP no. GW-	Expired

EPD ref. No.	EPD's notification of application dated	Permit no.	Permit time constraint	Permit valid from / to	Works required	Status
EP941/N04/TW0389-02		TW0389-02	hour on next day	10 th February 2003	TW0322-02, mainly painting works over SF LRT, PTR	
TW20021344, EP941/N04/TW0397-02	6 th November 2002	GW- TW0397-02	Any day 2300 hour to 0700 hour on next day	1 st December 2002 to 10 th February 2003	Renewal of CNP no. GW-TW0244-02, activities South West of PTA	Expired
TW20021366, EP941/N04/TW0400-02	11 th November 2002	GW- TW0400-02	Any day 2300 hour to 0700 hour on next day	23 rd November 2002 to 18 th January 2003	Renewal of CNP no. GW-TW0316-02, bridge deck over LRT-KFC	Expired
TW20021389, EP941/N04/TW0410-02	16 th November 2002	GW- TW0410-02	Any day not being a general holiday between 2300 hours and 0700 hours on the next day	5 th December 2002 to 10 th January 2003	Renewal of CNP no. GW-TW0325-02, dismantling of tower crane- HP St.	Expired
TW20021425, EP941/N04/TW0416-02	22 nd November 2002	GW- TW0416-02	Monday to Saturday (expect holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	16 th December 2002 to 15 th March 2003	Renewal of CNP no. GW-TW0286-02, tower crane use at TMS 2no only	Expired
TW20021489, EP941/N04/TW0432-02	6 th December 2002	GW- TWO432-02	Monday to Saturday (expect holidays) 1900 to 2300 hours and General holidays (including Sundays) 0700 to 2300 hours	1 st January 2003 to 20 th March 2003	Renewal of CNP no. GW-TW00331-02, painting steel structure at southern end of TMS	Expired
TW20021503, EP941/N04/TW0411-02	12 th December 2002	GW- TW0441-02	Any day not being a general holiday between 2300 hours and 0700 hours on the next day	11 th January 2003 to 11 th February 2003	Renewal of CNP no. GW-TW0410-02, dismantling of tower crane – HP St.	Expired
TW20030032, EP941/N04/TW0013-02	11 th January 2003	GW- TW0013-02	General holiday including Sundays 0700-2300 hours and any day not being a general holiday 1900-2300 hours	19 th January 2003 to 30 th April 2003	Renewal of CNP no. GW-TW0400-02, bridge deck over LRT-KFC.	Expired

EPD ref. No.	EPD's notification of application dated	Permit no.	Permit time constraint	Permit valid from / to	Works required	Status
TW20030051, EP941/N04/TW0028-03	14 th January 2003	GW- TW0028-03	Any 3 days within the validity period of the CNP between 2300-0700 hours on the next day	11 th February to 18 th March 2003	Cooling watermain diversion inn PTR	Expired
TW20030051, EP941/N04/TW0029-03	14 th January 2003	GW- TW0029-03	General holiday including Sundays 0700-2300 hours and any day not being a general holiday 1900-2300 hours	11 th February to 30 th March 2003	Renewal of CNP no. GW-TW0389-02, mainly painting works over SFLRT, PT.	Expired
TW20030051, EP941/N04/TW0030-03	14 th January 2003	GW- TW0030-03	General holiday including Sundays 0700-2300 hours and any day not being a general holiday 1900-2300 hours	11 th February to 10 th April 2003	Renewal of CNP no. GW-TW0397-02, activities South West of PTR	Expired
TW20030175, EP941/N04/TW0053-03	21 st February 2003	Withdrawn	/	/	Renewal of CNP no. GW-TW0028-02, cooling watermain diversion-PTR	Withdrawn
TW20030191, EP941/N04/TW0069-03	25 th February 2003	GW- TW0069-03	General holiday including Sundays 0700-2300 hours and any day not being a general holiday 1900-2300 hours	21 st March to 31 st May 03	Renewal of CNP no. GW-TW0432-02, painting steel structure at southern end of station	Expired
TW20030227, EP941/N04/TW0081-03	4 th March 2003	GW- TW0081-03	General holiday including Sundays 0700-2300 hours and any day not being a general holiday 1900-2300 hours	31 st March to 30 th April 03	Concrete block removal in the nullah	Expired
TW20030175, EP941/N04/TW0053-03	21 st February 2003	Withdrawn	/	/	Renewal of CNP no. GW-TW0028-02, cooling watermain diversion-PTR	Granted/Under Application
TW20030191, EP941/N04/TW0069-03	25 th February 2003	GW- TW0059-03	General holiday including Sundays 0700-2300 hours and any day not being a general holiday 1900-2300 hours	21 st March to 31 st May 03	Renewal of CNP no. GW-TW0432-02, painting steel structure at southern end of station	Granted/Under Application

EPD ref. No.	EPD's notification of application dated	Permit no.	Permit time constraint	Permit valid from / to	Works required	Status
TW20030256, EP941/N04/TW0093-03	11 th March 2003	GW- TW0093-03	Any day not being a general holiday between 1900-2300 hours and general holidays (including Sundays) between 0700-2300 hours	13 th April to 5 th September 03	Renewal of CNP no. GW-TW0323-02, global activities within station area	Granted/Under Application
TW20030361, EP941/N04/TW0124-03	4 th April 2003	GW- TW0124-03	General holiday including Sundays 2300-0700 hours and any day not being a general holiday 2300-0700 hours	28 th April to 10 th September 03	Renewal of CNP no. GW-TW0030-03, activities South West of PTR	Granted/Under Application
TW20030381, EP941/N04/TW0146-03	11 th April 2003	GW- TW0133-03	General holiday including Sundays 0700-0700 hours and any day not being a general holiday 1900-0700 hours	9 th May to 6 th June 03	Rising maze connection – pumping only – Ho Pong St	Granted/Under Application
TW20030422, EP941/N04/TW0144-03	17 th April 2003	GW- TW0144-03	General holiday including Sundays 2300-0700 hours and any day not being a general holiday 2300-0700 hours	12 th May to 25 th June 03	Renewal of CNP no. GW-TW0029-03, painting and misc activities – SFLRT/PTR	Granted/Under Application
TW20030423, EP941/N04/TW0144-03	17 th April 2003	GW- TW0145-03	General holiday including Sundays 2300-0700 hours and any day not being a general holiday 2300-0700 hours	12 th May to 30 th June 03	Renewal of CNP no. GW-TW0013-03, remedial works of KFC	Granted/Under Application
TW20030424, EP941/N04/TW0145-03	17 th April 2003	GW- TW0146-03	General holiday including Sundays between 0700-0700 hours and any day not being a general holiday 1900-0700 hours	12 th May 03 to 15 Aug 03	Renewal of CNP no. GW-TW0387-03, concreting works in the station area	Granted/Under Application
TW20030530, EP941/TW0173-03	19 th May 2003	GW- TW0173-03	General holiday including Sundays between 0700-2300 hours and any day not being a general holiday 1900-2300 hours	13 th June 03 to 10 th Jul 03	Renewal of CNP no. GW-TW0133-03, painting activities, southern end of station	Granted/Under Application

EPD ref. No.	EPD's notification of application dated	Permit no.	Permit time constraint	Permit valid from / to	Works required	Status
TW20030531, EP941/TW0174-03	19 th May 2003	GW- TW0173-03	General holiday including Sundays between 0700-0700 hours and any day not being a general holiday 1900-2300 hours	13 th Jun 03 to 15 th Aug 03	Renewal of CNP no. GW- TW0069-03, pumping activities for rising main - HPS	Granted/Under Application

APPENDIX K CUMULATIVE LOG OF NOTICE OF NON-COMPLIANCE (NC) FOR SITE INSPECTION/AUDIT

No.	Non-Compliance Record No. /Date	Letter Ref. / Date	Non-Compliances / Observations	Replied Letter Ref. / Date	MCAL Reply Ref. / Date	Actions Taken
1	NC-00469-00/ 24 th March 2000	0054076 / 28 th March 2000	Observations: 1) Noise – air compressor operating with door open, 2) Air quality – mobile crane operating emitting black smoke	CC0213-1167/ 6 th April 2000	0076253/ 27 th April 2000	1) ensure subbies to close all doors on equipment, 2) mobile crane removed from site
			Non-Compliances: 1) Activities near Southern earth dam disturbing the black mud contaminating the water, 2) No site drainage installed, 3) Diesel drums not in drip trays			1) work was for a limited period only, 2) no site drainage could be formed within the nullah, 3) diesel drums shall be placed in drip trays
2	NC-00947-00/ 9 th June 2000	0113625 / 16 th June 2000	Observations: 1) Vehicles not using wheel wash bay at Area 30A properly	CC213 – 1646/ 22 nd June 2000	18 th July 2000	1) wheel wash cleaned out and will be cleared at least daily
			Non-Compliances: 1) No proper chemical waste store, chemical wastes stored on the ground 2) door left open on air compressor			1) chemical waste stored acquisition, 2) remind subbies to keep doors closed on equipment
3	NA/ 7 th July 2000	0138588 / 18 th July 2000	Observations: nil	N/A		N/A
			Non-Compliances: nil			
4	NA/11 th August 2000	0094927/21 st August 2000	Observation: 1) One diesel drum was observed lying on bare soil at San Fat LRT without proper bunding.	N/A		1) Diesel drums were bundled.
			Non-Compliances: nil			

No.	Non-Compliance Record No. /Date	Letter Ref. / Date	Non-Compliances / Observations	Replied Letter Ref. / Date	MCAL Reply Ref. / Date	Actions Taken
5	NA/8 th September 2000	0193751/21 September 2000	Observation: 1) Air Quality – no wheel washing bay provided to exit to site near Pui To Road; and 2) Water quality – stockpiles stored along nullah are not covered..	N/A	N/A	1) manual wheel washing, by site worker, will be implemented; and 2) stockpiles will be covered by tarpaulins.
			Non-Compliances: nil			
6	NA/13 th October 2000	0215593/18 October 2000	Observation: 1) Air Quality – no water spraying whilst concrete breaking; and 2) Water quality –entrance/exit to site was muddy along Ho Pong Street, treat wheel wash properly prior to discharge	Not required	Not required	1) Educate site staff on dust suppression measures; 2) water from manually washed wheels to be directed to site, water to be directed to site area.
			Non-Compliances: nil			
7	NC-01962-00/10 th November 2000	0238404/13 th November	Observation: 1) Water Quality – Gridline 6, silty water discharge to nullah; 2) Waste/chemical management – some diesel drums lying on bare soil.	CC0213-2902 28 th November 2000	0264056/13 ^h December 2000	1) Silty water is discharged to low flow channel clean before pump over dam to nullah; 2) drip trays will be provided
			Non-Compliances: 1) Pipes from cofferdam area directly discharge over the dam to nullah.			1) Pipes to be directed to the cofferdam areas prior to discharge to the nullah.
8	NC-02116-00/8 th December 2000	0265367/14 th December	Observation: 1) Air Quality – noted, 2) Water Quality- discharge into the nullah at GL6, 3) Waste/chemical- three drums on bare soil, 4) No FEP at site exit opposite to the playground.	CC0213-3125 22 nd December 2000	0014399/17 ^h January 2001	2) Silty water discharge to low flow channel clean before pump over dam to nullah, 3) drip trays to be provided 4) FEP's is to be posted at exits from site.
			Non-Compliances: 1) Silty water being discharged into the nullah (over dam across the nullah).			1) Water discharge over the dam appeared satisfactory.

No.	Non-Compliance Record No. /Date	Letter Ref. / Date	Non-Compliances / Observations	Replied Letter Ref. / Date	MCAL Reply Ref. / Date	Actions Taken
9	NC-02279-00/12 th January 2001	0020063/27 th January 2001	Observation: 1) Water Quality-water discharge at dam appeared clear 2) Waste/Chemical Management-some diesel drums on bare soil 3) No FEP posted at some site exits	CC0213-3556/15 th February 2001	0046466/28 ^h February 2001	2) drip trays to be provided for diesel drums where ever necessary, 3) FEP's to be posted at exits from site
			Non-Compliances: 1) Silty water being discharged over the inner cofferdam to the nullah at GL6, 10 and 27			1) water discharged to low flow channel to help in the settling out of SS in the water prior to discharge to the open nullah
10	NC-02451-00/16 th February 2001	0041527/22 nd February 2001	Observation: 1) Water Quality-material may wash into nullah from stockpiles on nullah shoulder near Pier 90 2) Noise-air compressor door open at Pier 86 3) FEP not posted at some site exits	CC0213-3664/March 2001	0065206/23 ^d March 2001	2) stockpile material will be removed 2) isolated incident which requires additional surveillance and education 3) FEP to be posted
			Non-Compliances: 1) Silty water being discharged over the inner cofferdam to the nullah at GL1B, 29 and Pier 86, water discharge to manhole from site			1) settling tanks placed prior to discharge to low flow channel-water travels to the main cross dam acting as a desilting basin before pumping to open nullah, water discharge to manhole due to rupture of siphon
11	N/A/9 th March 2001	0075077/ 27 th March 2001	Observation: 1) No FEP posted at San Fat LRT Station site exit, 2) Air quality – reminded to spray water when breaking	CC0213-3879/2 nd April 2001	0086063/ 11 th April 2001	1) to be posted, 2) water to be sprayed when breaking
			Non-compliance: Nil			

No.	Non-Compliance Record No. /Date	Letter Ref. / Date	Non-Compliances / Observations	Replied Letter Ref. / Date	MCAL Reply Ref. / Date	Actions Taken
12	NC-02728-00/ 6 th April 2001	0086443/ 12 th April 2001	Observations: 1) Air quality – reminded to spray water when breaking	CC213-4228/ 22 nd May 2001	0195223/ 22 nd August 2001	1) water to be sprayed when breaking
			Non-compliance: 1) No FEP at site exit San Fat LRT Station			1) FEP posted at exit
13	NC-02892-00 11 th May 2001	0135032/ 8 th June 2001	Observations: 1) Nil	CC0213- 4456/15 th June 2001	0156364/ 9 th July 2001	N/A
			Non-compliance: 1) No FEP at site exit San Fat LRT Station			1) FEP posted at exit
14	N/A/ 15 th June 2001	0144137/ 20 th June 2001	Observations: 1) Nil	CC0213-4515- 26 th June 2001	N/A	N/A
			Non-compliance: 1) Nil			N/A
15	N/A/ 20 th July 2001	0172930/ 27 th July 2001	Observations: 1) Air quality-stockpile within the nullah outside Chelsea Heights, 2) Site management – accumulation of rubbish on site	CC0213-4953/ 22 nd August 2001	N/A	1) stockpile belonged to DSD contractor, 2) rubbish to be removed
			Non-compliance: Nil			
16	N/A/ 10 th August 2001	0191299/ 17 th August 2001	Observations: Nil	N/A	N/A	N/A
			Non-compliance: Nil			N/A
17	N/A/ 12 th September 2001	0244893/ 22 nd October 2001	Observations: Nil	N/A	N/A	N/A
			Non-compliance: Nil			N/A
18	N/A/ 12 th October 2001	0244864/ 22 nd October 2001	Observations: 1) Water quality – oil/water mixture found on accessway near San Fat Estate, 2) Water quality - reminded to clean wheels when vehicles depart site	CC0213-5447/ 29 th October 2001		1) to be cleaned up to the chemical store area, 2) all vehicle wheels are cleaned prior to leaving site

No.	Non-Compliance Record No. /Date	Letter Ref. / Date	Non-Compliances / Observations	Replied Letter Ref. / Date	MCAL Reply Ref. / Date	Actions Taken
			Non-compliance : Nil			N/A
19	N/A/ 9 th November 2001	0268872/ 20 th November 2001	Observations: 1) Nil	N/A		N/A
			Non-compliance: Nil			N/A
20	N/A/ 7 th December 2001	0286543/ 11 th December 2001	Observations: 1) Water was clearer and cleaner while pumped out to the channel from the dam.	N/A		N/A
			Non-compliance: Nil			N/A
21	N/A/ 15 th January 2002	0006664/ 17 th January 2002	Observations: 1) CNP posted near the dam had expired	CC0213-6138/ 22 nd January 2002	N/A	1) CNP removed and the most updated CNP for the area posted
			Non-compliance: Nil			N/A
22	N/A/ 8 th February 2002	0035787 / 15 th February 2002	Observations: 1) CNP posted near the dam was updated, 2) Requested to detail more observations when water monitoring	N/A	N/A	N/A
			Non-compliance: Nil			N/A
23	N/A / 8 th March 2002	0057310 / 13 th March 2002	Observations: 1) Reminded to spray water whilst concrete breaking, 2) Reminded to close the doors on air compressors when in use, 3) Advised to spray more water during demolition of SP Estate, 4) Grey water discharge at nullah cross dam – increase retention time of water	CC0213-6565/ 19 th March 2002	N/A	1) water will be sprayed when concrete breaking, 2) air compressor doors to be closed, 3) dust suppression will be stepped up during SP Estate demolition, 4) retention time to be increased
			Non-compliance: Nil			N/A
24	N/A / 12 th April 2002	0085611 / 18 th April 2002	Observations: 1) manual wheel washing was observed for vehicles leaving site, 2) dust emission was observed from various areas	CC0213-6809/ 23 rd April 2002	N/A	1) Comment noted, 2) dust suppression shall be provided for all dust producing activities

No.	Non-Compliance Record No. /Date	Letter Ref. / Date	Non-Compliances / Observations	Replied Letter Ref. / Date	MCAL Reply Ref. / Date	Actions Taken
			Non-compliance: Nil			N/A
25	N/A / 10 th May 2002	0107343 / 15 th May 2002	Observations: 1) water spraying was implemented for breaking works, 2) reminded to provide drip trays for fluid containers	CC0213-7044/ 29 th May 2002	N/A	1) Comment noted, 2) no requirements for the use of drip trays but may be provided
			Non-compliance: Nil			N/A
26	N/A / 7 th June 2002	0131061 / 14 th June 2002	Observations: 1) pages of CNP missing at CY bridge exit, 2) water spraying observed, 3) some dust emission at San Fat estate cleared area	CC0213-7223 / 22 nd June 2002	N/A	1) Pages to be replaced, 2) comment noted, 3) dust suppression measures to be enforced
			Non-compliance: Nil			N/A
27	N/A / 4 th July 2002	0154464 / 16 th July 2002	Observations: 1) equipment was inspected, 2) CNP was posted at CY bridge, 3) reminded to remove expired permits	CC0213-7410 / 19 th July 2002	N/A	1) Comment noted, 2) comment noted, 3) expired CNP's removed
			Non-compliance: Nil			N/A
28	N/A / 16 th August 2002	0181326 / 20 th August 2002	Observations: 1) reminded to provide cover for stockpiles, 2) haul road spraying observed	CC0213-7625 / 22 nd August 2002	N/A	1) Where necessary covers will be provided, 2) comment noted
			Non-compliance: Nil			N/A
29	N/A / 13 th September 2002	0201748 / 17 th September 2002	Observations: 1) reminded to keep compartment doors of generators closed	N/A	N/A	N/A
			Non-compliance: Nil			N/A

No.	Non-Compliance Record No. /Date	Letter Ref. / Date	Non-Compliances / Observations	Replied Letter Ref. / Date	MCAL Reply Ref. / Date	Actions Taken
30	N/A. / 11 th October 2002	0221925 / 17 th October 2002	Observations: 1) contractor was reminded to keep noisy equipment and activities away from NSRs – Liu Ming Choi School, 2) contractor reminded to cover 20 bags or more of cement.	N/A	N/A	1) noisy activities and equipment will be minimised near NSRs, 2) temporary storage of cement bags will be covered
			Non-compliance: Nil			N/A
31	N/A. / November 2002	0248202 / 21 st November 2002	Observations: 1) water depth at the sampling point near the dam is less than 0.5 m	N/A	N/A	1) possibly change water monitoring point
			Non-compliance: Nil			N/A
32	N/A. / December 2002	0271729 / 27 th December 2002	Observations: 1) water discharge over the nullah cross dam was black/grey in colour	N/A	N/A	1) regular maintenance of discharge point, lifting discharge pumps off the bottom.
			Non-compliance: Nil			N/A
33	N/A / January 2003	0015490 / 5 th February 2003	Observations: 1) reminded to cover cement bags after use. 2) advised to locate water quality monitoring point D11 at the middle of nullah.	N/A	N/A	1) cement bags to be covered. 2) monitoring point to be relocated if safety requirements are satisfied.
			Non-compliance: Nil			N/A
34	N/A / February 2003	0035366 / 25 th February	Observations: 1) reminded to cover cement bags after use or remove unused bags	N/A	N/A	1) cement bags to be removed

No.	Non-Compliance Record No. /Date	Letter Ref. / Date	Non-Compliances / Observations	Replied Letter Ref. / Date	MCAL Reply Ref. / Date	Actions Taken
		2003	Non-compliance: Nil			N/A
35	N/A / 18 th March 2003	0070414 / 16 th April 2003	Observations: 1) reminded to properly cover stockpiles. 2) some debris was seen floating on the water under Tuen Mun station.	N/A	N/A	1) stockpiles to be properly covered. 2) debris to be removed.
			Non-compliance: Nil			N/A
35	N/A / 15 th April 2003	0076773 / 29 th April 2003	Observations: 1) used empty cement bags were observed on the west bank near Ho Tin ramp. 2) reminded to clean up the nullah after all slope stabilization..	N/A	N/A	1) empty cement bags to be disposed off site. 2) nullah to be cleaned of spoil material when all embankment work completed..
			Non-compliance: Nil			N/A
36	N/A / 13 th May 2003	0090693 / 21 st May 2003	Observations: 1) D11 water quality monitoring location moved back to Pui To Road.	N/A	N/A	1) noted.
			Non-compliance: Nil			N/A
37	N/A / 10 th June 2003	0106162 / 16 th June 2003	Observations: 1) landscaping work at Tuen Mun town park not yet commenced.	N/A	N/A	1) noted.
			Non-compliance: Nil			N/A

APPENDIX L NOTIFICATION FROM EPD OF BREACHES OF REGULATIONS (OR POSSIBLE BREACHES OF REGULATION)

No.	EPD Reference No.	Date of Offence/Inspection	Ordinance Breach	Construction Activity During Breach	Actual results	Date of Summons / Prosecution	Outcome
1	W7/00502	28 th January 2000*	358	Oily water being pumped	20 th March 2000, Oil and grease (49000mg/L), 17 th April 2000, Oil and grease (190000mg/L)	(No summon sent)	
2	EP941/P1/000 3-00	25 th February 2000	400	PME being used in violation of CNP (i.e. Site was Concreting)	N/A	30 th August 2000	\$13,000 fine
3	N/A	23 rd March 2000	400	PME being used in violation of CNP (i.e. Predrilling at San Fat LRT)	N/A	11 th October 2000	\$40,000 fine
4	(No Notification was received in April 2000)						
5	(No Notification was received in May 2000)						
6	N/A	11 th June 2000	400	PME being used without valid CNP (i.e. Concreting on a Sunday)	N/A	10 th January 2001	\$16,000 fine
7	(No Notification was received in July 2000)						
8	(No Notification was received in August 2000)						
9	N/A	15 th September 2000	358	Inadequate/no treatment to water discharged from site	N/A	N/A	N/A
10	N/A	17 th September 2000*	400	PME being used without valid CNP (i.e. Working on a Sunday)	N/A	18 th Apr 2001	\$200,00 fine
11	N/A	5 th October 2000*	400	PME (crane lorry, mobile crane being used without valid CNP (i.e. Work at 20:00 hours)	N/A	2 nd May 2001	\$80,000 fine
12	(No Notification was received in November 2000)						
13	TW2102-00	4 th December 2000*	311	Air emission from cutting activities contributed to air pollution	N/A	N/A	N/A
16		16 th January 2001	400	PME being used not in accordance with valid CNP (concreting during restricted hours)	N/A	11 th July 2001	\$5,000

No.	EPD Reference No.	Date of Offence/Inspection	Ordinance Breach	Construction Activity During Breach	Actual results	Date of Summons / Prosecution	Outcome
17		21 st January 2001	400	PME being used not in accordance with valid CNP	N/A	11 th July 2001	\$5,000
18	W7/L16	2 nd February 2001	358	Burst siphon water (foul water) pumped to nullah near GL7	N/A	11 th July 2001	\$5,000
19	L1-6	9 th February 2001	358	Wastewater discharged to the nullah upstream of Choy Yee Bridge without proper treatment	N/A	11 th July 2001	\$5,000
20		13 th February 2001	311	Demolition of the footbridge at Pui To Road with two breakers with no dust suppression		23 rd May 2001	\$100,000
21	() in EP903/G1/1	1 st March 2001	400	PME being used not in accordance with valid CNP (excavator used near nullah dam during restricted hours)	No "Record of Inspection" given out by EPD	11 th July 2001	\$5,000
22		11 th April 2001	400	PME being used not in accordance with valid CNP (breaker used during restricted hours)	N/A	11 th July 2001	\$5,000
23	(No Notification was received in May 2001)						
24	(No Notification was received in June 2001)						
25	(No Notification was received in July 2001)						
26	EP3/N4/A91/T W/11 18-01	9 th August 2001	311	Smoke emission from generators at Yick Yuen Road (storage area site)	N/A	N/A	N/A
27	(No Notification was received in September 2001)						
28	(No Notification was received in October 2001)						
29	(No Notification was received in November 2001)						
30	(No Notification was received in December 2001)						
31	(No Notification was received in January 2002)						

No.	EPD Reference No.	Date of Offence/Inspection	Ordinance Breach	Construction Activity During Breach	Actual results	Date of Summons / Prosecution	Outcome
32				(No Notification was received in February 2002)			
33		12 th March 2002	358	Discharging water from outfalls directly to the nullah near GL4			
34				(No Notification was received in April 2002)			
35				(No Notification was received in May 2002)			
36				(No Notification was received in June 2002)			
37				(No Notification was received in July 2002)			
38				(No Notification was received in August 2002)			
39				(No Notification was received in September 2002)			
40				(No Notification was received in October 2002)			
41				(No Notification was received in November 2002)			
42		10 th December 2002	311	Compliant from public to EPD- Vehicles exiting from Yan Ching St to TM Heung Sze Wui Road producing dust emission	EPD inspected the site exit and issued a yellow "Record of Inspection" form	N/A	N/A
43				(No Notification was received in January 2003)			
44				(No Notification was received in February 2003)			
45				(No Notification was received in March 2003)			
46				(No Notification was received in April 2003)			
47				(No Notification was received in May 2003)			
48				(No Notification was received in June 2003)			

Note: * Possible breaches of regulation. Notification of summon or prosecution was not issued from EPD.

Legend: Water Pollution Control Ordinance – 358 Noise Control Ordinance – 400

Air Pollution Control Ordinance – 311