**Jardine Engineering Corporation, Limited**

**Contract No. DE/2007/07**
**Ultraviolet Disinfection Works for**
**Sha Tin Sewage Treatment Works and**
**Tai Po Sewage Treatment Works**

# - Sha Tin Sewage Treatment Works

**Quarterly Environmental Monitoring and**
**Audit Summary Report**
**(January to March 2009)**
**(Version 2.0)**

Certified By _____
(Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties.

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## EXECUTIVE SUMMARY

1. This is the 3rd Quarterly Environmental Monitoring and Audit (EM&A) Summary Report prepared by Cinotech Consultants Limited (the Environmental Team, ET) for DSD Contract no. DE/2007/07 "Ultra-violet Disinfection Works for Sha Tin Sewage Treatment Works and Tai Po Sewage Treatment Works". This summary report presents EM&A works for Sha Tin Sewage Treatment Works performed in the period between January and March 2009.

2. The construction activities undertaken in the reporting quarter included:-

- Temporary flow diversion of existing DN2100/2250 PCP;
  - Breaking existing PCP for flow diversion;
  - Construction of mini-piles;
  - Construct new DN675 pre-cast concrete pipe (PCP);
  - Construct new D.I. pipe;
  - Load test to mini-piles;
  - Bulk excavation for UV structure.

**Environmental Complaint and Prosecution**

3. No environmental complaint, prosecution or notification of summons was received in this reporting quarter.

**Environmental Licensing and Permitting**

4. Environmental related licenses/permits granted to the Project include the Environmental Permit (EP), Construction Noise Permit and Discharge License for the Project.

**Future Key Issues**

5. The anticipated environmental impacts will be mainly on ponding water, surface runoff after rain, noise nuisance as well as dust emission from the major construction activities which will be undertaken in the coming quarter, including:

- Bulk excavation for UV structure;
- Construction of superstructure for UV;
- Construction of proposed D.I pipe; and
- Construction of proposed DN225 PCP.

# 1. INTRODUCTION

## Background

1.1 Sha Tin Sewage Treatment Works (STSTW) is located within the Sha Tin area 47. It currently comprises three Stages: I, II and III Extension. The stage III Extension of STSTW aims to construct and operate new sewage treatment facilities in order to increase the sewage treatment capacity catering for the residential developments in the Sha Tin Catchment area and comply with new effluent discharge standards to be proposed by Environmental Protection Department.

1.2 The STSTW Stage III extension is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 449). A study of environmental impact assessment (EIA) was undertaken to evaluate various environmental impacts associated with the works. An EIA Report as well as an Environmental Monitoring and Audit (EM&A) Manual were approved by the Environmental Protection Department (EPD) on 24 August 1999.

1.3 An Environmental Permit (EP) No. VEP-021/2000/B/EP-046 was issued on 16 August 2000 for the STSTW Stage III Extension works to the Drainage Services Department (DSD) as the Permit Holder. Jardine Engineering Corporation, Limited was awarded by DSD as the main contractor Contract No. DE/2007/07 "Ultra-violet Disinfection Works for Sha Tin Sewage Treatment Works and Tai Po Sewage treatment Works" (hereinafter named "the Project"). A site layout plan is provided in **Figure 1.1**. The construction activities of the Project commenced on 15 July 2008.

1.4 Cinotech Consultants Ltd. was commissioned by the Contractor as the Environmental Team (ET) to undertake the EM&A works for the Project. Dr. Priscilla CHOY of Cinotech Consultants Ltd. was appointed as the ET Leader as per the Condition 2.1 of the EP. ENSR Asia (HK) Ltd was employed by DSD to undertaken IEC services of the Project and Mr. YT Tang of ENSR Asia (HK) Ltd. was appointed as the IEC under Condition 2.2 of the EP. This is the 3rd quarterly EM&A report summarizing the EM&A works for the Project between January and March 2009.

## Project Organizations

1.5 Different parties with different levels of involvement in the project organization include:

- Project Proponent / Engineer's Representative (ER) – Drainage Services Department
- Environmental Team (ET) – Cinotech Consultants Ltd.
- Independent Environmental Checker (IEC) – ENSR Asia (HK) Ltd
- Main Contractor – Jardine Engineering Corporation, Limited (JEC)
- Sub-Contractor – China Harbour Engineering Company Ltd. (CHEC)

1.6 The key contacts of the Project are shown in Table 1.1.

**Table 1.1 Key Project Contacts**

| Party | Role | Name | Position | Phone No. | Fax No. |
|---|---|---|---|---|---|
| DSD | SP Division | Mr. LEE Tai Kwan | Chief Engineer | 2594 7500 | 2827 8700 |
| | | Mr. IP Shu-kuen | Senior Engineer | 2594 7456 | |
| | | Mr. Derek Chung | Engineer | 2594 7456 | |

| Party | Role | Name | Position | Phone No. | Fax No. |
|---|---|---|---|---|---|
| | | Ms. Fiona LIU | Engineer | 2594 7471 | |
| Cinotech | Environmental Team | Dr. Priscilla CHOY | ET Leader | 2151 2089 | 3107 1388 |
| | | Ms. To WONG | Project Coordinator and Audit Team Leader | 2151 2077 | |
| | | Mr. Henry LEUNG | Monitoring Team Leader | 2151 2087 | |
| MCAL | Independent Environmental Checker | Mr. TANG Yu-tin | Independent Environmental Checker | 3105 8537 | 2891 0305 |
| | | Ms. Joanne TSOI | Assistant to Independent Environmental Checker | 3105 8506 | |
| CHEC | Civil Contractor | Mr. TK CHEUNG | Project Manager | 9482 1357 | 2660 6191 |
| | | Mr. YY LEUNG | Assistant Project Manager | 2660 7112 | |

**Construction Programme and Synopsis of Work**

1.7 The construction programme is presented in **Appendix A**. The site activities undertaken during the reporting quarter included:

- Temporary flow diversion of existing DN2100/2250 PCP;
  - Breaking existing PCP for flow diversion;
  - Construction of mini-piles;
  - Construct new DN675 pre-cast concrete pipe (PCP);
  - Construct new D.I. pipe;
  - Load test to mini-piles;
  - Bulk excavation for UV structure.

**Summary of EM&A Requirements**

1.8 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 2 of this report.

## 2. AUDIT RESULTS

### Implementation Status of Environmental Mitigation Measures

2.1 The updated environmental mitigation implementation schedule (during construction phase) is given in **Appendix B**.

### Site Audit Summary

2.2 In the reporting quarter, total 12 site inspections were conducted by ET. During site inspections in the reporting period, no non-conformance was identified. The observations and recommendations made in each site audit session in the reporting period are summarized in Table 2.1.

**Table 2.1 Observations and Recommendations of Site Audit**

| Parameters | Date | Observations and Recommendations | Follow-up |
|---|---|---|---|
| ***Water Quality*** | 19-Feb-2009 | Dusty stockpile was accumulated near drainage. In order to protect the drainage system, contractor was reminded to clear it or cover it with tarpaulin sheet. | The situation was observed improved in audit session 90226. |
| | 19-Mar-2009 | C&D waste was located in the wheel washing facility. Contractor was reminded to clear it and maintain it back in good condition. | The situation was observed improved in audit session 90326. |
| | 19-Mar-2009 | Concrete debris was observed near the wheel washing facility. Contractor was reminded to clear it. | The situation was observed improved in audit session 90326. |
| ***Air Quality*** | 19-Mar-2009 | Uncovered stockpile was observed in site area. Contractor was reminded to cover it. | The situation was observed improved in audit session 90326. |
| ***Waste/ Chemical Management*** | 15-Jan-2009 | Oil stain was observed on the ground. Contractor was reminded to clear it and provide drip tray. | The situation was observed improved in audit session 90122. |
| | 26-Mar-2009 | C&D waste was observed in site area. The contractor was reminded to clear it. | The situation will be followed-up in the coming audit session. |

### Status of Environmental Licensing and Permitting

2.3 Environmental licenses/permits granted to the Project included the Environmental Permit (EP), Construction Noise Permit and Discharge Licence for the Project. A summary status of licenses and permits is given in **Appendix C**.

**Advice on Waste Management Status**

2.4 The Construction and Demolition (C&D) materials generated in the reporting period were mainly non-inert C&D waste and inert C&D materials. Besides, no disposal of chemical waste was recorded in the reporting period. The quantities of waste generated are summarized in **Appendix D**.

## 3. NON-COMPLIANCE (EXCEEDANCES) OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS (ACTION AND LIMIT LEVELS)

### Environmental Complaint and Prosecution

3.1 No environmental complaint, prosecution or notification of summons was received in this reporting quarter. The updated Complaint Log is attached in **Appendix E**.

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

3.2 There was no non-compliance from the site audits in the reporting quarter. The observations and recommendations made in each individual site audit session were attached in the Monthly Reports.

## 4. COMMENTS, CONCLUSIONS AND RECOMMENDATIONS

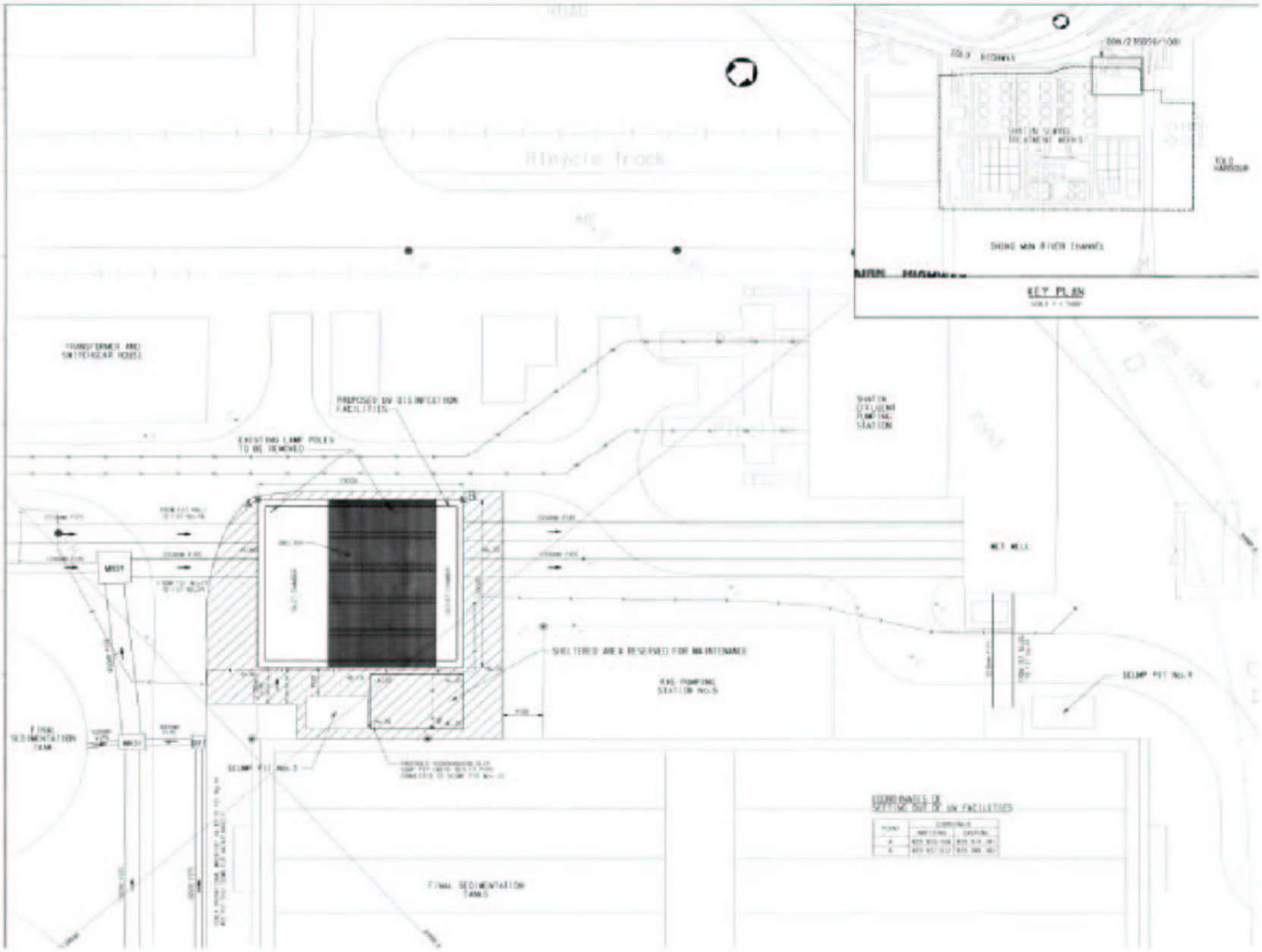
4.1 Environmental monitoring and audit works were performed in the reporting quarter. Site inspections were conducted on a weekly basis. The results were reviewed and checked.

4.2 There was no environmental complaint, prosecution or notification of summons received.

4.3 The anticipated environmental impacts will be mainly on ponding water, surface runoff after rain, noise nuisance as well as dust emission from the major construction activities which will be undertaken in the coming quarter, including:

- Bulk excavation for UV structure;
- Construction of superstructure for UV;
- Construction of proposed D.I pipe; and
- Construction of proposed DN225 PCP.

# FIGURES




CINOTECH
Cinotech Consultants Limited

Contract DE/2007/07 Ultraviolet Disinfection Works for Shatin Sewage Treatment Works and Tai po Sewage Treatment Works

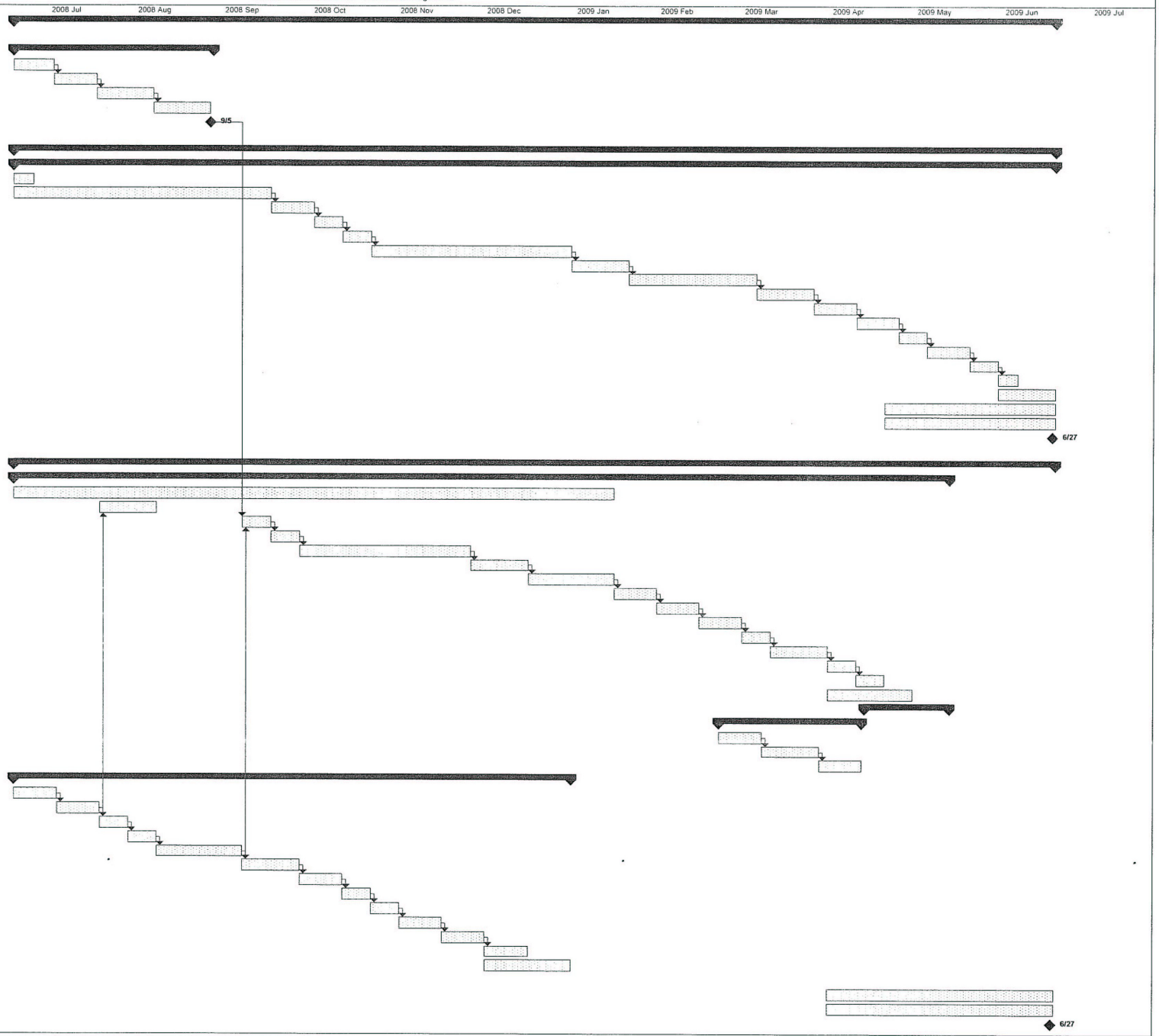
Site Layout Plan

| | | | |
|---|---|---|---|
| SCALE | N.T.S. | DATE | Jul-08 |
| CHECK | PC | DRAWN | CM |
| JOB NO. | MA8018 | DRAWING No. | 1.1 |
| | | Rev | - |

# APPENDIX A
# CONSTRUCTION PROGRAMME

Contract No. DE/2007/07 - Civil Works Programme

| | Task Name | Duration | Start |
|---|---|---|---|
| 1 | ***Civil Works of the Works at TPSTW and STSTW*** | ***365 days*** | ***2008/6/28*** |
| 2 | | | |
| 3 | **Section IIb of the Works at TPSTW** | 70 days | 2008/6/28 |
| 4 | Design / Method Statement Submission / Approval | 14 days | 2008/6/28 |
| 5 | ELS Works | 15 days | 2008/7/12 |
| 6 | Modification of Ex. Chamber F1 / Const. of Chamber C3 | 20 days | 2008/7/27 |
| 7 | Laying of DN1800 PCP / Backfilling | 20 days | 2008/8/16 |
| 8 | Completion of Section IIb | 1 day | 2008/9/5 |
| 9 | | | |
| 10 | **Section IIIa of the Works for STSTW (Civil Works)** | 365 days | 2008/6/28 |
| 11 | **Construction of UV Disinfection Channels / Shelters** | 365 days | 2008/6/28 |
| 12 | Removal of Ex. Utilities | 7 days | 2008/6/28 |
| 13 | Temporary Flow Diversion of Ex. DN2100 / 2500 Pipes | 90 days | 2008/6/28 |
| 14 | Pre-drilling Works | 15 days | 2008/9/26 |
| 15 | Preliminary Pile | 10 days | 2008/10/11 |
| 16 | Load Test to Prel. Pile | 10 days | 2008/10/21 |
| 17 | Minipiling Works (46 nos.) | 70 days | 2008/10/31 |
| 18 | Pile Testing Works (Load Test / Proof-drilling) | 20 days | 2009/1/9 |
| 19 | ELS Works | 45 days | 2009/1/29 |
| 20 | Pile Heads Construction | 20 days | 2009/3/15 |
| 21 | Base Slab Construction | 15 days | 2009/4/4 |
| 22 | Walls / Intermediate Top Slab Construction | 15 days | 2009/4/19 |
| 23 | Partition / External Walls Construction | 10 days | 2009/5/4 |
| 24 | Chamber Top to R/F of Shelter Construction | 15 days | 2009/5/14 |
| 25 | Watertightness Test | 10 days | 2009/5/29 |
| 26 | Shoring Removal / Backfilling | 7 days | 2009/6/8 |
| 27 | ABWF Works | 20 days | 2009/6/8 |
| 28 | **Utilities / Drainage Works** | 60 days | 2009/4/29 |
| 29 | **Roadworks** | 60 days | 2009/4/29 |
| 30 | **Completion of Section IIIa (Civil Works)** | 1 day | 2009/6/27 |
| 31 | | | |
| 32 | **Section IIIb of the Works for TPSTW (Civil Works)** | 365 days | 2008/6/28 |
| 33 | **Construction of UV Disinfection Channels / Shelters** | 328 days | 2008/6/28 |
| 34 | Removal of Disused Sludge Pipes / Ex. DN1650 PCP | 210 days | 2008/6/28 |
| 35 | Pre-drilling Works | 20 days | 2008/7/28 |
| 36 | Preliminary Pile | 10 days | 2008/9/16 |
| 37 | Load Test to Prel. Pile | 10 days | 2008/9/26 |
| 38 | Minipiling Works (41 nos.) | 60 days | 2008/10/6 |
| 39 | Pile Testing Works (Load Test / Proof-drilling) | 20 days | 2008/12/5 |
| 40 | ELS Works | 30 days | 2008/12/25 |
| 41 | Pile Heads Construction | 15 days | 2009/1/24 |
| 42 | Base Slab Construction | 15 days | 2009/2/8 |
| 43 | Walls / Intermediate Top Slab Construction | 15 days | 2009/2/23 |
| 44 | Partition / External Walls Construction | 10 days | 2009/3/10 |
| 45 | Chamber Top to R/F of Shelter Construction | 20 days | 2009/3/20 |
| 46 | Watertightness Test | 10 days | 2009/4/9 |
| 47 | Shoring Removal / Backfilling | 10 days | 2009/4/19 |
| 48 | ABWF Works | 30 days | 2009/4/9 |
| 49 | **Construction of UV Local Control Kiosk** | 30 days | 2009/4/22 |
| 50 | **Construction of DN2250 Pipeline** | 50 days | 2009/3/2 |
| 51 | ELS Works | 15 days | 2009/3/2 |
| 52 | Construction of Chamber C1 / C2 | 20 days | 2009/3/17 |
| 53 | Laying of DN2250 PCP / Backfilling | 15 days | 2009/4/6 |
| 54 | **Construction of Transformer Hse.** | 195 days | 2008/6/28 |
| 55 | Demolition of Ex. Sludge Stacking Hse. | 15 days | 2008/6/28 |
| 56 | Pre-drilling Works | 15 days | 2008/7/13 |
| 57 | Preliminary Pile | 10 days | 2008/7/28 |
| 58 | Load Test to Prel. Pile | 10 days | 2008/8/7 |
| 59 | Minipiling Works (16 nos.) | 30 days | 2008/8/17 |
| 60 | Pile Testing Works (Load Test / Proof-drilling) | 20 days | 2008/9/16 |
| 61 | ELS Works | 15 days | 2008/10/6 |
| 62 | Pile Heads Construction | 10 days | 2008/10/21 |
| 63 | Pile Caps / Grd. Beams Construction | 10 days | 2008/10/31 |
| 64 | G/F Slab Construction & Backfilling | 15 days | 2008/11/10 |
| 65 | G/F to R/F Construction | 15 days | 2008/11/25 |
| 66 | External Staircase Construction | 15 days | 2008/12/10 |
| 67 | ABWF Works | 30 days | 2008/12/10 |
| 68 | | | |
| 69 | **Utilities / Drainage Works** | 80 days | 2009/4/9 |
| 70 | **Roadworks** | 80 days | 2009/4/9 |
| 71 | **Completion of Section IIIb (Civil Works)** | 1 day | 2009/6/27 |




Project: DE/2007/07 UV Disinfection Works for STSTW and TPSTW
Date: 2008/9/25

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

**APPENDIX B**
**UPDATED ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)**

**APPENDIX B – Updated Environmental Mitigation Implementation Schedule (During Construction Phase)**

| Type of Impact | Recommended Mitigation Measures | Status |
|---|---|---|
| ***Air Quality*** | **Dust control measures:**<br><br>• Water shall be sprayed to minimise dust generation;<br>• Any debris from the demolition or construction of the Project shall be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and at three sides;<br>• Any dusty material remaining after a stockpile of cement or other materials is removed shall be wetted and cleared from the surface of roads;<br>• Any skip hoist for material transport shall be totally enclosed by impervious sheeting;<br>• Vehicle washing facilities, including a high pressure water jet, shall be provided. Every vehicle shall be washed to remove any dusty materials from its body and wheels;<br>• Selective area shall be paved with concrete, bituminous materials, hardcore or metal plates and kept clear of dusty materials;<br>• Water shall be sprayed to keep the entire road surface wet and to minimize dust generation;<br>• Every stock of more than 20 bags of cement shall be covered entirely by impervious sheeting or placed in an area sheltered on the top and at 3 sides;<br>• Cement bags or any other dusty materials collected during the work shall be disposed of in totally enclosed containers;<br>• Every belt conveyor used for the transfer of point between any two belt conveyors shall be totally enclosed. | √ |
| ***Water Quality*** | **Mitigation Measures to minimise and control of water quality impact:**<br><br>• Surface run-off shall be directed into storm drains via adequately designed sand silt removal facilities such as sand traps, silt traps and sediment basins;<br>• Silt removal facilities, channels and manholes shall be maintained and the deposited silt and grit shall be regularly to ensure the effectiveness of the system;<br>• Temporarily exposed soil surfaces shall be covered e.g., by tarpaulin, and temporary access roads shall be protected by crushed stone or gravel, as excavation proceeds;<br>• Rainwater pumped out from trenches, such as those excavated for pipelaying, shall be discharged into storm drains via silt removal facilities;<br>• Open stockpile of construction materials (e.g. aggregates and sand) on site shall be covered with tarpaulin or similar fabric during rainstorms;<br>• Groundwater pumped out wells, etc. for the lowering of ground water level in foundation construction of the Stage III facilities shall be discharged into storm drains after the removal of silt in slit removal facilities;<br>• Wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, shall undergo large object removal by installing bar traps at the drain inlets.<br>• Sewage from toilets, kitchens and similar facilities for the construction workers shall be discharged into a foul sewer or chemical toilets;<br>• All fuel tanks and chemical storage areas should be provided with locks and be sited on seals areas;<br>• The storage areas should be surrounded by bunds with a capacity of the largest tank to prevent spilled oil, fuel and chemicals from reaching the receiving waters.<br>• Guidelines and procedures for immediate clean-up actions following any spillages of oil, fuel or chemicals should be provided. | √ |
| ***Noise*** | Construction activities shall be limited to the daytime hours (0700 to 1900) on Monday to Saturday<br><br>The following mitigation measures shall be followed:<br>• The contractor shall comply with and observe the *Noise Control ordinance* and its subsidiary regulations in force in Hong Kong;<br>• Before the commencement of any work, the Engineer may require the methods of working equipment and sound-reducing measures intended to used on the Site to be made available for inspection and approval to ensure that they are suitable for the Project;<br>• The Contractor shall be ensure that all plant and equipment to be used on the site are properly maintained in a good operating condition;<br>• Only well-maintained plant shall be operated on-site and plant shall be serviced regularly;<br>• Machines and plant (such as trucks) that may be in intermittent use shall be shut down between work periods or shall be throttled down to a minimum;<br>• Plant known to emit noise strongly in one direction, shall, where possible, be orientated so that the noise is directed away from noise sensitive receivers (NSRs); | √ |

| Type of Impact | Recommended Mitigation Measures | Status |
|---|---|---|
| | • Silencers or mufflers on construction equipment shall be utilized, if found necessary to further reduce noise, and shall be properly maintained during the construction phase;<br>• Mobile plant shall be sited as far away from NSRs as possible; | |
| ***Waste Management*** | • Construction waste shall be handled and stored in a manner to ensure that they are held securely without loss to leakage;<br>• Licensed waste hauliers for chemical wastes and for dumping at public filling area shall be used and they shall only collect wastes prescribed by their permits;<br>• Construction wastes shall be removed in a timely manner;<br>• Waste storage areas shall be maintained and cleaned regularly;<br>• Windblown litter and dust during transportation shall be minmised by either covering trucks or transporting wastes in enclosed containers;<br>• Wastes shall be disposed of at licensed waste disposal facilities;<br>• Careful design, planning and good site management shall be adopted to minimise over-ordering and generation of waste materials such as concrete, mortars and cement grouts;<br>• The handling and disposal of bentonite slurries shall be undertaken in accordance with *Practice Note for Professional Persons – Construction Site Drainage* (ProPECC PN 1/94) on construction site drainage;<br>• Chemical waste that is produced, during construction shall be handled in accordance with the *Code of Practice on the Packaging, Handling and Storage of Chemical Wastes*;<br>• Containers used for the Storage of Chemical wastes shall be suitable for the substance they are holding, resistant to corrosion, display a label in English and Chinese in accordance with instructions prescribed in *Schedule 2 of the Chemical Waste Regulations*;<br>• The chemical waste storage area shall be also have adequate ventilation; be covered to prevent rainfall entering; and be arranged so that incompatible materials are adequately separated ;<br>• Disposal of chemical waste shall be via a licensed waste collector; and to a facility licensed to receiver chemical waste;<br>• General refuse shall be stored in enclosed bins;<br>• Construction/ demolition waste should be separated from chemical waste;<br>• Burning of refuse on construction sites is strictly prohibited, | √ |
| ***Contaminated Land*** | Approximately 1,400$m^3$ of contaminated soil shall be disposal of at the SENT landfill.<br><br>Potential exposure to the contaminated materials by the construction workers shall be avoided by implementing following measures.<br><br>• Bulk earth moving equipment shall be used to minimise potential contact with site construction workers;<br>• Exposure to any contaminated materials present shall be minimized by wearing appropriate clothing and personal protective gear when interacting directly with contaminated material, providing adequate hygiene and washing facilities, and preventing smoking and eating during such activities;<br>• The Contractor shall ensure that rainfall and surface run-off is diverted around any area currently being worked;<br>• The use of clean fill shall be considered to bring the site to finished grade;<br>• Stockpiling of contaminated soils shall be prohibited unless covered;<br>• The Contractor shall be obtain the necessary waste disposal permits from the appropriate authority, if they are required , in accordance to the *Waste Disposal Ordinance* (Cap 354), and *Waste Disposal (Chemical) Regulations*;<br>• The Constructor shall obtain an admission ticket from the Facilities Management Group of EPD for disposal of contaminated soil at landfills; and<br>• Only licensed waste hauliers shall be employed for contaminated wastes and disposal of waste to appropriately licensed waste facilities. | N/A |

***Note***:
√ – Compliance of mitigation measures
X – Non-compliance of mitigation measures
N/A – Not applicable

# APPENDIX C
# SUMMARY STATUS OF ENVIRONMENTAL LICENCES AND PERMITS

## APPENDIX C – Summary of Status Environmental Licences and Permits

| Permit / License No. | Valid Period | | Details | Status |
|---|---|---|---|---|
| | From | To | | |
| **Environmental Permit (EP)** | | | | |
| VEP-021/2000/B/EP-046 | 16/08/2000 | N/A | Construct and operate new sewage treatment facilities, including<br>(a) Inlet works;<br>(b) Primary sedimentation tanks;<br>(c) Activated sludge aeration tanks;<br>(d) Final sedimentation tanks;<br>(e) Sludge dewatering facilities;<br>(f) Ultra-violet disinfection facilities; and<br>(g) Associated laboratory building. | Valid |
| **Construction Noise Permit (CNP)** | | | | |
| CNP GW-RN0338-08 | 28/9/2008 | 27/3/2009 | Use of powered mechanical equipment for carrying out construction work at 1 Shui Chong Street, Ma Liu Shui, Shatin, N.T. at 07:00 – 23:00 on general holiday including Sunday and 19:00 – 23:00 on any day not being a general holiday. | Valid |
| CNP GW-RN0445-08 | 13/12/2008 | 12/6/2009 | Use of powered mechanical equipment for carrying out construction work at 1 Shui Chong Street, Ma Liu Shui, Shatin, N.T. at 2300 – 0700 on any day | Valid |
| **Discharge Licence** | | | | |
| 3760 | 10/12/2008 | 31/12/2013 | Discharge of construction effluent:<br>*Water Control Zone*: Tolo Harbour Channel<br>*Discharge Points*: Communal drain for the carriage of surface drainage water. | Valid |

**APPENDIX D**
**WASTE GENERATION IN REPORTING QUARTER**

**APPENDIX D – WASTE GENERATION IN THE REPORTING QUARTER**

# Monthly Summary Waste Flow Table January to March 2009 (Year)

| Month | Actual Quantities of Inert C&D Materials Generated Monthly | | | | | Actual Quantities of C&D Wastes Generated Monthly | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Total Quantity Generated | Broken Concrete (see Note 4) | Reused in the Contract | Reused in other Projects | Disposed as Public Fill | Metals | Paper/ cardboard packaging | Plastic (see Note 3) | Chemical Waste | Others, e.g. general refuse |
| | (in '000$m^3$) | (in '000$m^3$) | (in '000$m^3$) | (in '000$m^3$) | (in '000$m^3$) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000m3) |
| Jan | 0.029 | 0 | 0 | 0 | 0.029 | 0 | 0.04 | 0 | 0 | 0.03 |
| Feb | 0 | 0 | 0 | 0 | 0 | 0 | 0.03 | 0 | 0 | 0.03 |
| Mar | 0.979 | 0 | 0 | 0 | 0.979 | 0 | 0.04 | 0 | 0 | 0.02 |
| Apr | | | | | | | | | | |
| May | | | | | | | | | | |
| June | | | | | | | | | | |
| Sub-total | 1.008 | 0 | 0 | 0 | 1.008 | 0 | 0.11 | 0 | 0 | 0.08 |
| July | | | | | | | | | | |
| Aug | | | | | | | | | | |
| Sept | | | | | | | | | | |
| Oct | | | | | | | | | | |
| Nov | | | | | | | | | | |
| Dec | | | | | | | | | | |
| Total | 1.008 | 0 | 0 | 0 | 1.008 | 0 | 0.11 | 0 | 0 | 0.08 |

Notes : (1) The performance targets are given in PS Sub-clause 1.135(4)(a).

(2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.

(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.

(4) Broken concrete for recycling into aggregates.

**APPENDIX E**
**COMPLAINT LOG**

## APPENDIX E – COMPLAINT LOG

**Reporting Month**: January to March 2009

| Log Ref. | Location | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
|---|---|---|---|---|---|
| N/A | N/A | N/A | N/A | N/A | N/A |

**Remarks**: No environmental complaint was received in the reporting quarter.