

## **EM&A Report**

# **EcoPark Operation**Quarterly EM&A Compliance Report

**August to October 2010** 









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**August to October 2010** 

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### **EXECUTIVE SUMMARY**

#### General

EcoPark is a key element in the Government's waste management policy that aims to promote the local recycling industry and jump-start a circular economy to provide a sustainable solution to our waste problems. EcoPark is being developed in two phases at a site in Tuen Mun Area 38.

In November 2006, the seven-year contract for the operation of EcoPark – *EP/SP/53/06 Provision of Management Services for EcoPark in Tuen Mun Area 38* – was awarded to Serco Guardian JV (SGJV) by the Environmental Protection Department (EPD). From August 2010 SGJV, the "Operator" of EcoPark, have engaged SMEC Asia Ltd. (SMEC) as their Environmental Team (ET) to carry out the Environmental Monitoring and Audit (EM&A) works required by the EM&A Manual in accordance with the conditions of the Environmental Permit.

This is the fourteenth quarterly EM&A report prepared for the operation phase of EcoPark and covers August to October 2010.

The tenants' recycling activities are to be audited on a monthly basis and the results are to be summarised in this report. At present, there are eight tenants in EcoPark:

- Yan Oi Tong Limited (Yan Oi Tong) waste plastics;
- Shiu Wing Steel Limited (Shiu Wing) waste metals;
- Champway Technology Limited (Champway) waste cooking oil;
- Hong Kong Hung Wai Wooden Board Company (Hung Wai) waste wood;
- Li Tong Group (Li Tong) Waste Electrical and Electronic Equipment (WEEE);
- St. James' Settlement (St James') WEEE;
- Hong Kong Telford Envirotech Group Limited (Telford) waste plastics; and
- Cosmos Star Holdings Co., Limited (Cosmos) waste lead-acid batteries.

The ET has conducted monthly site inspections and some general observations have been made. The approved checklist has been used in the monthly site inspections for various tenants since October 2009.

#### **Throughput of Materials / Waste Generated**

As of end October 2010, six tenants (Yan Oi Tong, Shiu Wing, Champway, Hung Wai, Li Tong and St. James') have commenced recycling activities within their lots. Two tenants (Telford and Cosmos) have not commenced recycling activities as they are still constructing their premises. The following throughputs occurred during the reporting quarter:

- Yan Oi Tong: 207,368kg of waste plastics was received and 137,324kg was processed. 45,535kg of general refuse was generated from mixed waste plastics.
- Shiu Wing: 2,435,510kg of waste metal was delivered to and processed at the tenant lot, producing the same amount of sheared heavy ferrous scrap on site. No waste was generated.



- Champway: 326,248kg of cooking oil and 511,540kg of grease-trap waste were
  delivered to the site, producing 756,236kg of treated cooking oil, 543,000kg of
  biodiesel and 27,150kg of glycerine. 81,553kg of waste was generated, including
  43,708kg of organic waste and 37,845kg of water waste (semi-solid and slurry
  inclusive).
- Hung Wai: 833,620kg of waste wood was delivered to and processed at the site, resulting in the same amount of wood chips as product output. No waste was generated.
- **Li Tong**: 43,774kg of WEEE was delivered to the site, producing 3,978kg of metals and 12,004kg of non-metals. No waste was generated.
- **St James'**: 3,500kg of WEEE was delivered to the site, producing 190kg of repaired / refurbished Electrical and Electronic Equipment (EEE). No waste was generated.
- Telford: Although recycling activities are not currently being carried out, 22,700kg of waste plastics were delivered to Telford's lot.

#### **Exceedances of any Measured Action / Limit Levels**

In terms of monitoring, only quarterly monitoring of landfill gas (LFG) is required during operation phase EM&A and "following construction". As the construction of Phase 1 of EcoPark has been completed, operation phase LFG monitoring for Phase 1 has been carried out since October 2009. The LFG monitoring of this reporting quarter was undertaken on 27 October 2010, and no exceedance of action / limit level was recorded. LFG monitoring for Phase 2 of EcoPark continues to be carried out by the works contractor.

#### **Summary of Complaints, Summons and Prosecutions**

To-date, there have been no complaints received; no notifications of summons; and no successful prosecutions.

#### **Reporting Changes**

Effective from August 2010, SMEC have taken over as the ET for the EM&A works, replacing the previous ET who were engaged by SGJV from May 2007 to July 2010. There is, however, no change to the ET Leader, who remains as Mr Antony WONG. The content of this EM&A report is similar to that prepared previously so as to provide continuity and compatibility with previous reporting.

#### **Future Key Issues**

By end of this reporting quarter, two tenants (Telford and Cosmos) had not commenced recycling activities but were carrying out preparatory works within their lots. In the next reporting quarter, Telford are expected to have commenced recycling activities.

In the next reporting quarter, operation phase LFG monitoring for Phase 1 shall continue. As advised by the Operator, the Phase 2 construction was completed in October 2010; as a result, the operation phase LFG monitoring for Phase 2 shall commence in the next reporting quarter. The Process Review Checklist (PRC) for Telford will be revised and further reviewed pending receipt of further information from tenant.



## 1 PROJECT DESCRIPTION

#### 1.1 Overview

In the document "A Policy Framework For The Management Of Municipal Solid Waste (2005-2014)" the government set out a comprehensive policy to support the recycling industry. This included allocating suitable land, encouraging research and development, introducing environmental legislation and providing effective support measures. To this end, EcoPark is a key element that aims to promote the local recycling industry and jump-start a circular economy to provide a sustainable solution to our waste problems. By encouraging and promoting the reuse, recovery and recycling of our waste resources and returning them to the consumption loop, EcoPark will help to realise the full potential of the local recycling industry and alleviate the heavy reliance on the export of recyclable materials recovered from Hong Kong.

EcoPark is being developed in two phases in Tuen Mun Area 38 (see *Figure 1-1*). The construction contract for EcoPark – *EP/SP/52/06 Development of EcoPark in Tuen Mun Area 38* – was awarded to Kaden Construction in June 2006 by EPD. This contract covers development of Phase 1 (completed) and extends to Phase 2 (ongoing).

In November 2006, the seven-year contract for the operation of EcoPark – *EP/SP/53/06 Provision of Management Services for EcoPark in Tuen Mun Area 38* – was awarded to SGJV by EPD. Effective from August 2010 onwards, SGJV has appointed SMEC as the ET for the EM&A works, replacing the previous ET who were engaged by SGJV from May 2007 to July 2010.

## 1.2 Operation Programme

By end of October 2010, two tenants (Telford and Cosmos) have commenced preparatory works within their lots, and six tenants (Yan Oi Tong, Shiu Wing, Champway, Hung Wai, Li Tong and St. James') have started recycling activities.

Environmental observations noted during this quarter's site inspections are detailed in **Section 7**. In brief, these are as follows:

- Yan Oi Tong: Separated general refuse from the mixed plastics, and the key
  environmental concerns were waste plastics and refuse in drains as well as
  housekeeping. The tenant was therefore reminded to improve housekeeping, install
  screen at the drain inlet and provide covers to the U-channels.
- Shiu Wing: Sheared waste metal into heavy ferrous scrap, although the misting
  system and industrial dust collector are not yet in place. No critical environmental
  issues were observed in Shiu Wing's lot in this reporting quarter, yet the tenant was
  suggested to register as a Chemical Waste Producer and engage a registered
  asbestos laboratory for testing the suspected Asbestos Containing Materials.
- Champway: Processed and produced significant amounts of treated cooking oil and biodiesel, respectively. By end of October 2010, no waste cooking oil / biodiesel has been temporarily stored in the area reserved for the EcoPark wastewater treatment Plant (WWTP), next to Telford's lot. The key environmental concerns identified include chemical drums and oil stains on bare ground; as a result, Champway was reminded to store chemicals and dispose of the oil stain properly.



- Hung Wai: Shredded large amount of waste wood into wooden chips, and the
  packaging of shredded wood chips generated fugitive dust. In order to address such
  environmental issue, the tenant was suggested to minimise the gap between the
  outlet and packaging bags.
- Li Tong: Started checking and dismantling waste electrical and electronic equipment (WEEE) manually. No critical environmental issues were observed and the lot was generally tidy.
- **St. James**': Commenced sorting and checking WEEE. No critical environmental issues were observed and the lot was generally tidy.

Remedial actions were recommended to tenants, and the remedial status shall be followed up in the next monthly site inspection.

## 1.3 EM&A Organisation

The EM&A is carried out by the ET, but SGJV and the Independent Environmental Checker (IEC) are also involved. The key personnel contact names and telephone numbers are summarised in *Table 1-1*.

**Table 1-1 Personnel Contact Names and Contact Numbers for the Project** 

Party	Position Name		Telephone No.
Project Proponent – EPD	Principal EPO Officer	Dr Lawrence WONG	2872 1700
0 1 00 11/	Project Manager	Noel AU	2496 7633
Operator – SGJV	Park Manager	Morgan CHIU	2212 5910
ET OMEON: IVI	ET Leader	Antony WONG	3995 8120
ET – SMEC Asia Ltd	ET Site Inspector	Carman CHUNG	3995 8138
IEC - Scott Wilson Ltd	IEC	Harold INSLEY	2410 3858

The organisation of SGJV is shown in *Figure 1-2* and the current EM&A organisation is illustrated in *Figure 1-3*.



Figure 1-1 Location of EcoPark in Tuen Mun Area 38



Source: EPD Records (October 2009)



Figure 1-2 SGJV Organisation

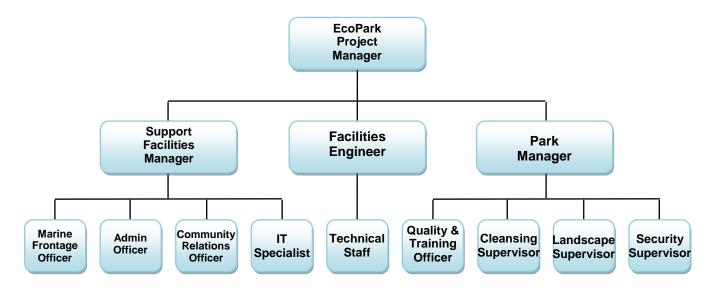
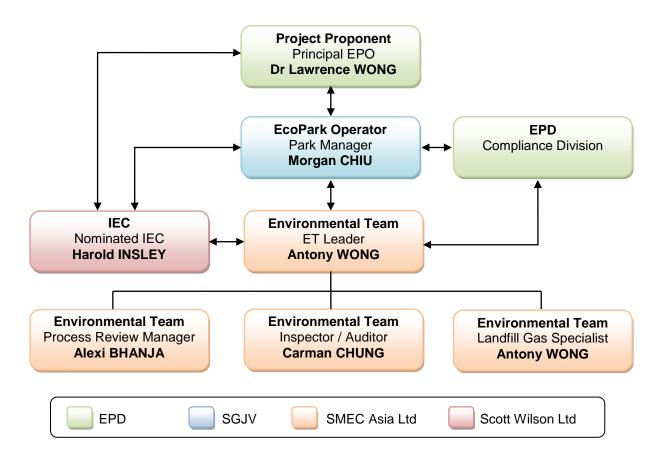


Figure 1-3 EM&A Organisation





## 2 SUMMARY OF EM&A REQUIREMENTS

## 2.1 Monitoring Parameters

The only parameter to be monitored as part of the operation phase EM&A programme is LFG.

Following completion of Phase 1 construction, routine monitoring is required at service voids and utility boxes. Since construction of Phase 1 of EcoPark was completed, quarterly LFG monitoring has been carried out by the ET since October 2009.

The location for monitoring was not specified in the EM&A Manual since the final design of EcoPark had not been completed when the EM&A Manual was approved. Therefore, during the joint site inspection on 27 July 2009, three monitoring locations were identified and agreed as suitable monitoring locations by the ET, IEC and SGJV. These three monitoring locations are listed in *Table 2-1* and shown in *Figure 2-1*.

Table 2-1 Operation Phase LFG Monitoring Locations in EcoPark Phase 1

Monitoring Station ID	Type of Monitoring Station	Locations	
EP1-1	LFG vent pipe with cap	Inside the landscaping area of Administration Building	
EP1-2	Service void	PCCW below-ground chamber outside Lot EP08-01	
EP1-3	Service void	HGC Broadband below-ground chamber outside Lot EP08-03	

Figure 2-2 is a replacement page for the EM&A Manual, in accordance with footnote to Figure 6.1 in the approved EM&A Manual, and shall be deemed to be included in the EM&A Manual.

Routine monitoring shall be carried out on a quarterly basis, however, should EPD alert the Operator that high LFG levels had been detected during monthly monitoring under the Siu Lang Shui Landfill restoration contract, then the Operator may be required to increase LFG monitoring to monthly until such time as EPD inform the Operator that quarterly monitoring can be resumed.

Since operation phase LFG monitoring is required "following construction" and Phase 2 construction was completed in October 2010, operation phase LFG monitoring for Phase 2 shall commence in the next reporting quarter. In this reporting quarter, construction phase LFG monitoring for Phase 2 was undertaken as usual and was reported in the Monthly EM&A Reports prepared by the construction contractor's ET. These reports can be downloaded from:

http://www.epd.gov.hk/eia/english/register/index8/vep2212006 content.html

## 2.2 Environmental Quality Performance Limits and EAP

The Action / Limit Levels and Event Action Plan (EAP) for LFG are shown in *Table 2-2*, below. These refer to LFG detected in excavations, utilities and any enclosed on-site



areas. No other A/L Levels or EAPs are specified in the EM&A Manual for operation phase EM&A.

Table 2-2 Action Levels, Limit Levels and Event and Action Plan for LFG

Parameter	Level	Action
	Action Level <19% O <sub>2</sub>	<ul> <li>Ventilate trench/void to restore O<sub>2</sub> to &gt; 19%</li> </ul>
Oxygen (O <sub>2</sub> )	Limit Level <18% O <sub>2</sub>	<ul> <li>Stop works</li> <li>Evacuate personnel / prohibit entry</li> <li>Increase ventilation to restore O<sub>2</sub> to &gt; 19%</li> </ul>
Methane	Action Level >10% LEL	<ul> <li>Post "No Smoking" signs</li> <li>Prohibit hot works</li> <li>Increase ventilation to restore CH<sub>4</sub> to &lt;10% LEL</li> </ul>
(CH <sub>4</sub> )	Limit Level >20% LEL	<ul> <li>Stop works</li> <li>Evacuate personnel / prohibit entry</li> <li>Increase ventilation to restore CH<sub>4</sub> to &lt;10% LEL</li> </ul>
	Action Level >0.5% CO <sub>2</sub>	<ul> <li>Ventilate to restore CO<sub>2</sub> to &lt; 0.5%</li> </ul>
Carbon Dioxide (CO <sub>2</sub> )	Limit Level >1.5% CO <sub>2</sub>	<ul> <li>Stop works</li> <li>Evacuate personnel / prohibit entry</li> <li>Increase ventilation to restore CO<sub>2</sub> to &lt;0.5%</li> </ul>

#### 2.3 Environmental Audit of Non-Monitored Parameters

Site inspections provide a direct means to trigger and enforce the environmental protection and pollution control measures specified in the Environmental Impact Assessment (EIA) Report. To examine operational practice, site inspections are to be undertaken regularly by the ET once per month, and joint site inspections are to be carried out by the ET and IEC once per quarter. Ad hoc site inspections are also carried out if significant environmental problems are identified. In addition, inspections may be required subsequent to receipt of an environmental complaint, or as part of the investigation work, as specified in the EAP. The following parameters are required to be audited as part of the operation phase EM&A programme:

- Air Quality
- Water Quality
- Waste Management
- Land Contamination

## 2.4 Environmental Mitigation Measures

Environmental mitigation measures applicable to the operation phase EM&A as stated in the Implementation Schedule are summarised in *Appendix 1*.

## 2.5 Environmental Requirements in Tenancy Agreements

Environmental requirements specified in tenancy agreements are summarised in *Appendix 2*.



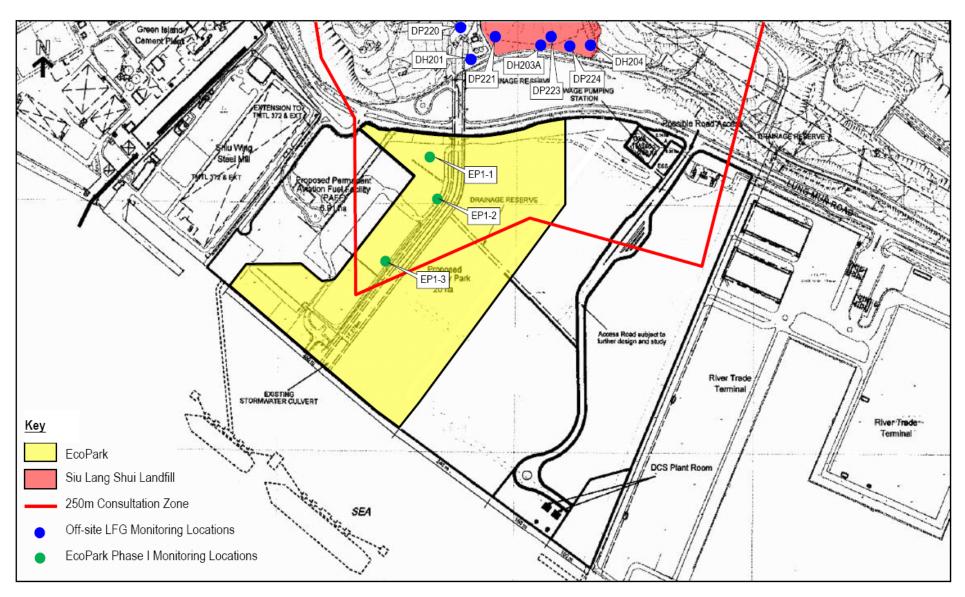
Figure 2-1 LFG Monitoring Locations within EcoPark Phase 1



Area Within the Shiu Lang Shui Landfill Gas Consultation Zone



Figure 2-2 Replacement Figure for EM&A Manual Figure 6.1





## 3 OPERATION STATUS

#### 3.1 Tenants and Processes

*Figure 3-1* shows the location of lots within EcoPark, the tenancy numbers and tenant names.

#### 3.1.1 Tenancy EP06-034

• Lot Size: Approx. 5,000m<sup>2</sup>

Activity: Recycling of Waste Wood

Tenant: Hong Kong Hung Wai Wooden Board Company

 Recycling Process: Shred waste wood into wooden chips for further processing in Mainland China. Ferrous metals will be separated by magnets.

Following the trial run and operation of the lot in May and June 2010, recycling activities commenced in July 2010. In this reporting quarter, large quantities of wood chips (product output) have been produced. A summary of waste throughputs is provided in *Section 3.2*.

#### 3.1.2 Tenancy EP07-02

Lot Size: Approx. 6,500m<sup>2</sup>

Activity: Recycling of WEEE

Tenant: Li Tong Group

Recycling Process: Manually dismantling of WEEE, particularly CRT glass and LCD panels into metals (ferrous materials, aluminium, etc.) and non-metals (fibres, plastics, etc.).

After the completion of Phase 1 construction works in June 2010, the Occupation Permit was obtained on 5 August 2010. Phase 1 trial operation took place in September 2010, and the recycling activities commenced in October 2010. A summary of waste throughputs is provided in *Section 3.2*.

#### 3.1.3 **Tenancy EP07-03**

• Lot Size: Approx. 6,000m<sup>2</sup>

• Activity: Recycling of Organic Waste (Waste Cooking Oil)

Tenant: Champway Technology Limited

 Recycling Process: Turn waste cooking oil into biodiesel by extraction, neutralisation, separation and distillation

Following trial run and operation of the lot in May and June 2010, Phase 1 recycling activities commenced in July 2010.

In this reporting quarter, a significant amount of treated cooking oil and biodiesel have been processed and produced, respectively. Between July to September 2010, Champway temporarily stockpiled biodiesel in the reserved area for the WWTP, next to



Telford's lot, yet no biodiesel storage could be found there by end of October 2010. A summary of waste throughputs is provided in **Section 3.2**.

#### 3.1.4 Tenancy EP08-01

• Lot Size: Approx. 5,000m<sup>2</sup>

• Activity: Recycling of Waste Plastics

• Tenant: Hong Kong Telford Envirotech Group Limited

Recycling Process: Sorting, shredding and extrusion of waste plastics

As of end October 2010, the tenant has commenced preparatory works but has not yet commenced recycling activities. Plastic bags have been stockpiled in the lot since July 2009, and other plastic waste and some recycling equipment could also be found. The PRC will be reviewed and revised pending receipt of further information from the tenant.

#### 3.1.5 Tenancy EP08-03

• Lot Size: Approx. 9,500 m<sup>2</sup>

• Activity: Recycling of Waste Metals

• Tenant: Shiu Wing Steel Limited

 Recycling Process: Turn waste metals into light ferrous scrap and heavy ferrous scrap by sorting, baling and shearing

Further to the trial run and operation of the lot in May and June 2010, recycling activities commenced in July 2010. In this reporting quarter, large amounts of waste metal / steel scrap have been processed. A summary of waste throughputs is provided in **Section 3.2**.

#### 3.1.6 Tenancy EP08-04

• Lot Size: Approx. 4,000 m<sup>2</sup>

Activity: Recycling of materials arising from industrial and commercial activities

Tenant: Cosmos Star Holdings Co., Limited

 Recycling Process: Separate waste lead-acid and lithium batteries by mechanical / physical means. The battery acid will be drained and treated by the on-site wastewater treatment system

A building contractor was engaged in October 2010 and preparatory works have commenced, however, no significant construction works have been carried out by the end of this reporting quarter.

#### **3.1.7 Tenancy P7**

• Lot Size: Approx. 5,000 m<sup>2</sup>

• Activity: Recycling of waste plastics

Tenant: Yan Oi Tong Limited

 Recycling Process: Convert mixed waste plastics into pellets / flakes / baled materials by pre-washing, sorting, flaking, secondary washing, drying, extrusion and chip-forming



Further to the trial run and operation of the lot in March and April 2010, recycling activities commenced in May 2010. In this reporting quarter, large amount of waste plastics have been sorted. A summary of waste throughputs is provided in **Section 3.2**.

#### 3.1.8 Tenancy P5

Lot Size: Approx. 4,070 m<sup>2</sup>
 Activity: Recycling of WEEE

• Tenant: St. James' Settlement

Recycling Process: WEEE will be sorted on site first. The WEEEs suitable for reuse
will be repaired and refurbished, whilst those irreparable / not suitable for repair will
be manually dismantled to recover the reusable parts and recyclable materials

After the completion of construction works in September 2010, the recycling activities commenced in October 2010. A summary of waste throughputs is provided in **Section 3.2**.

## 3.2 Throughput Statistics

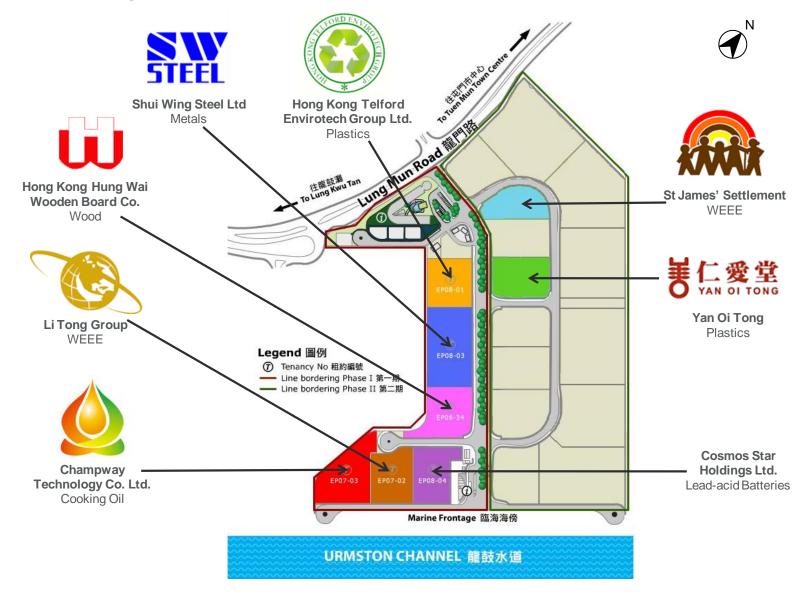
As of end October 2010, six tenants (Yan Oi Tong, Shiu Wing, Champway, Hung Wai, Li Tong and St. James') have commenced recycling activities within their lots. Two tenants (Telford and Cosmos) have not commenced recycling activities as they are still constructing their premises. The following throughputs occurred during the reporting quarter:

- Yan Oi Tong: 207,368kg of waste plastics was received and 137,324kg was processed. 45,535kg of general refuse was generated from mixed waste plastics.
- Shiu Wing: 2,435,510kg of waste metal was delivered to and processed at the tenant lot, producing the same amount of sheared heavy ferrous scrap on site. No waste was generated.
- Champway: 326,248kg of cooking oil and 511,540kg of grease-trap waste were
  delivered to the site, producing 756,236kg of treated cooking oil, 543,000kg of
  biodiesel and 27,150kg of glycerine. 81,553kg of waste was generated, including
  43,708kg of organic waste and 37,845kg of water waste (semi-solid and slurry
  inclusive).
- Hung Wai: 833,620kg of waste wood was delivered to and processed at the site, resulting in the same amount of wood chips as product output. No waste was generated.
- **Li Tong**: 43,774kg of WEEE was delivered to the site, producing 3,978kg of metals and 12,004kg of non-metals. No waste was generated.
- St James': 3,500kg of WEEE was delivered to the site, producing 190kg of repaired / refurbished EEE. No waste was generated.
- Telford: Although recycling activities are not currently being carried out, 22,700kg of waste plastics were delivered to Telford's lot.

Detailed throughput figures are provided in *Appendix 3*.



Figure 3-1 Current Lot Usage Within EcoPark





# 4 IMPLEMENTATION STATUS OF ENVIRONMENTAL PROTECTION MEASURES

Environmental mitigation measures applicable to the operation phase EM&A as stated in the implementation schedule are summarised in *Appendix 1*. Environmental requirements specified in tenancy agreements are summarised in *Appendix 2*.

As of end October 2010, six tenants (Yan Oi Tong, Shiu Wing, Champway, Hung Wai, Li Tong and St. James') have commenced recycling activities within their lots. Appropriate environmental protection measures are in place.



## 5 MONITORING RESULTS

## 5.1 Monitoring Date, Time, Frequency and Duration

A set of LFG measurement was conducted on quarterly basis. In this reporting quarter, the measurement was undertaken during the joint IEC site inspection on 27 October 2010. When the LFG monitoring is underway, monitoring data, time, duration for monitoring and the weather condition, are recorded and listed in *Table 5-1*, below.

Table 5-1 Sampling Schedule of LFG Monitoring

Station ID	Date	Time	Duration	Air Temp	Weather
EP1-1		09:40 – 09:45	5 minutes	21°C	Fine
EP1-2	27 Oct 10	09:50 – 09:55	5 minutes	21°C	Fine
EP1-3		10:05 – 10:10	5 minutes	21°C	Fine

## 5.2 Monitoring Methodology, Parameters and Equipment

The LFG monitoring requirement and methodology are stipulated in Section 6 of the EM&A Manual. The LFG monitoring parameters and their measurement ranges are detailed in *Table 5-2*, below.

Table 5-2 Parameters and Measurement Ranges of LFG Monitoring

Parameters	Measurement Ranges
Methane (CH <sub>4</sub> )	0-100% LEL & 0-100% v/v
Oxygen (O <sub>2</sub> )	0-25% v/v
Carbon Dioxide (CO <sub>2</sub> )	0-100% v/v
Barometric Pressure	mBar (absolute)

LFG monitoring shall be carried out using intrinsically-safe, portable multi-gas monitoring instruments. The gas monitoring equipment shall:

- Where possible, comply with BS 6020 and be approved by BASEEFA as intrinsically safe, suitable for use in a Zone 2 are to BS 5345.
- Be capable of continuous monitoring of methane, oxygen and carbon dioxide.
- Be capable of continuous barometric pressure and gas pressure measurements.
- Normally operate in diffusion mode unless required for spot sampling, when it should be capable of operating by means of an aspirator or pump.
- Have low battery, fault and over range indication incorporated.
- Store monitoring data, and shall be capable of being down-loaded directly to a PC.
- · Measure in the following ranges:

Methane
 0-100% LEL & 0-100% v/v

Oxygen 0-25% v/vCarbon dioxide 0-100% v/v

Barometric pressure mBar (absolute)



The monitoring equipment shall alarm (both audibly and visually) in the event that the concentrations of the following are exceeded:

- Methane rise to 10% LEL.
- Oxygen fall to 18% by volume.
- Carbon monoxide maximum short term (1-hour) exposure of 300ppm with long term average (8-hours) not to exceed 50ppm.

## 5.3 Types of Equipment Used and Calibration Details

One Infra Red Gas Analyser Model GA94A (serial number GA3385) was used for LFG measurements. The gas analyser is calibrated every 18 months. *Appendix 4* presents the monitoring equipment calibration records.

## 5.4 Results and Graphical Plots of Monitoring Parameters

LFG monitoring results are summarised in *Table 5-3*, below. The Action and Limit Levels were shown in *Table 2-2*. Graphical plots of the monitoring results are also provided in *Appendix 5*.

**Table 5-3 LFG Monitoring Results** 

	Monitoring Results					
Station ID	CH <sub>4</sub> (% v/v)	CH₄ (% LEL)	O <sub>2</sub> (% v/v)	CO <sub>2</sub> (% v/v)	Barometric Pressure (mBar)	
EP1-1	0.0	0	21	0.0	1018	
EP1-2	0.0	0	21	0.0	1018	
EP1-3	0.0	0	20	0.0	1019	

As can be seen above, no Action or Limit Level exceedance was recorded.



## **6 WASTE GENERATION STATISTICS**

As of end October 2010, six tenants (Yan Oi Tong, Shiu Wing, Champway, Hung Wai, Li Tong and St. James') have commenced recycling activities within their lots. The details of waste generation are shown in *Appendix 3*.

- Yan Oi Tong: 45,535kg of general refuse was sorted from the mixed waste plastics at Yan Oi Tong's lot, and subsequently disposed of at WENT Landfill.
- Shiu Wing: Has not generated any non-ferrous scrap / general refuse from the waste metal / steel scrap in this reporting quarter.
- Champway: 81,553kg of waste, including 43,708kg of organic waste and 37,845kg of water waste (semi-solid and slurry inclusive). These organic waste and water waste were collected by licence collectors, transported to and disposed of at WENT Landfill as general refuse.
- Hung Wai: Has not produced any general refuse from the waste wood in this reporting quarter.
- **Li Tong**: Has not produced any general refuse from the WEEE in this reporting quarter.
- **St. James**': Has not produced any general refuse from the WEEE in this reporting quarter.



## 7 SUMMARY OF ENVIRONMENTAL AUDIT

## 7.1 August 2010

Environmental audits of active tenants and the general EcoPark audit were carried out by the ET on 30 August 2010.

#### 7.1.1 Tenant Audits

Four tenants (Yan Oi Tong, Shiu Wing, Champway and Hung Wai) had commenced recycling activities and a summary of their audits is provided below. Apart from Hung Wai, the audits were conducted based on the approved site inspection checklist. The completed audit checklists for tenants are provided in *Appendix 6*.

- Yan Oi Tong: Previous observations of environmental deficiency were rectified. One
  new observation of refuse on bare ground of the waste storage area was recorded
  during the audit. The tenant was reminded to enhance housekeeping. The completed
  checklist for Yan Oi Tong is provided in *Appendix 6.1*.
- Shiu Wing: Previous observations of oil spillage and uncovered oil drums were
  rectified. Two new observations of chemical waste handling and suspected Asbestos
  Containing Materials (ACM) were recorded during the audit. The tenant was advised
  to register as a Chemical Waste Producer and engage a registered asbestos
  laboratory for testing the suspected ACM. The completed checklist for Shiu Wing is
  provided in Appendix 6.2.
- Champway: Previous observations of oil stain, uncovered waste cooking oil bucket
  and stagnant water at the reserved area for WWTP were rectified. Two new
  observations of chemical drum and oil dripping on bare ground were recorded during
  the audit. The tenant was reminded to store and label the chemicals properly, as well
  as providing appropriate secondary containment for this potential source of ground
  contamination. The completed checklist for Champway is provided in *Appendix 6.3*.
- Hung Wai: Since the contact person was not available, the audit was conducted based on the general EcoPark audit checklist instead of the approved tenant-specific audit checklist. The checklist for Hung Wai is provided in Appendix 7.

#### 7.1.2 General EcoPark Audit

The general EcoPark audit found muddy trails outside lot P10 (from the Phase 2 works contractor) were still in evidence. The Operator was advised to liaise with the Resident Engineer to ensure that the mud was cleared. No new observations were recorded during the audit. The completed general checklist for EcoPark is provided in *Appendix 7*.

## **7.2** September 2010

Environmental audits of active tenants and the general EcoPark audit were carried out by the ET on 29 September 2010.

#### 7.2.1 Tenant Audits

Four tenants (Yan Oi Tong, Shiu Wing, Champway and Hung Wai) had commenced recycling activities and a summary of their audits is provided below. The audits were



conducted based on the approved site inspection checklist. The completed audit checklists for tenants are provided in *Appendix* 6.

- Yan Oi Tong: Previous observations of environmental deficiency remained outstanding. Two new observations of overflow at the working area and stagnant water inside the manhole of the storm water drain were recorded during the audit. The tenant was reminded to provide proper maintenance to their WWTP and to clean the U-channels. The completed checklist for Yan Oi Tong is provided in *Appendix* 6.1.
- Shiu Wing: Previous observations of environmental deficiencies shall be followed up
  in the next monthly audit. No new observations were recorded during the audit. The
  completed checklist for Shiu Wing is provided in *Appendix 6.2*.
- Champway: Previous observations of environmental deficiencies were rectified. No new observations were recorded during the audit. The completed checklist for Champway is provided in *Appendix 6.3*.
- Hung Wai: No new observations were recorded during the audit. The completed checklist for Hung Wai is provided in *Appendix 6.4*.

#### 7.2.2 General EcoPark Audit

The general EcoPark audit found muddy trails outside lot P10 (from the Phase 2 works contractor) were still in evidence, although less so than in the previous audit. The Operator was again advised to remind the Phase 2 works contractor to clear the mud. No new observations were recorded during the audit. The completed general checklist for EcoPark is provided in *Appendix 7*.

#### 7.3 October 2010

Environmental audits of active tenants and the general EcoPark audit were carried out by the ET and the IEC in a joint inspection on 27 October 2010.

#### 7.3.1 Tenant Audits

Six tenants (Yan Oi Tong, Shiu Wing, Champway, Hung Wai, Li Tong and St. James') had commenced recycling activities and a summary of their audits is provided below. The audits were conducted based on the approved site inspection checklist. The completed audit checklists for tenants are provided in *Appendix* 6.

- Yan Oi Tong: Previous observations of environmental deficiency remained outstanding and the tenant was again reminded to improve housekeeping, install a screen at the drain inlet and provide covers for the U-channels. No new observations were recorded during the audit. The completed checklist for Yan Oi Tong is provided in Appendix 6.1.
- Shiu Wing: Previous observations of environmental deficiencies shall be followed up
  in the next monthly audit. No new observations were recorded during the audit. The
  completed checklist for Shiu Wing is provided in *Appendix 6.2*.
- Champway: No follow-up action was required from the previous site audit. Two new
  observations of chemical drums and oil stains on bare ground were recorded during
  the audit. The tenant was reminded to place chemicals in a proper storage area and
  dispose of the oil stains properly. The completed checklist for Shiu Wing is provided
  in Appendix 6.3.



- Hung Wai: No follow-up action was required from the previous site audit. One new
  observation of fugitive dust from packaging of shredded wood chips was recorded
  during the audit. The tenant was advised to minimise the gap between the outlet and
  packaging bags to control fugitive dust emission. The completed checklist for Hung
  Wai is provided in *Appendix 6.4*.
- **Li Tong**: No new observations were recorded during the audit. The completed checklist for Li Tong is provided in *Appendix 6.5*.
- **St. James**': No new observations were recorded during the audit. The completed checklist for St. James' is provided in *Appendix 6.6*.

#### 7.3.2 General EcoPark Audit

Following the site audit in September 2010, no follow-up action was required as the previous muddy trails had been cleaned.

One new environmental observation of an oily patch at Telford's lot was recorded during the audit. The tenant was therefore reminded to clear the patch as soon as possible and provide secondary containment during equipment oil replacement / underneath oil drums. The completed general checklist for EcoPark (and non-active tenants) is provided in *Appendix 7*. The remedial status shall be followed up in the next audit.

During the joint site inspection, LFG monitoring was undertaken at the three monitoring locations agreed by the ET, IEC and SGJV in July 2009. These three monitoring locations are listed in *Table 2-1* and shown in *Figure 2-1*. The monitoring results are presented in *Section 5.4*. No action / limit level exceedance was recorded.



## 8 COMPLAINTS

As of end October 2010, six tenants (Yan Oi Tong, Shiu Wing, Champway, Hung Wai, Li Tong and St. James') have commenced recycling activities within their lots. No complaints related to recycling activities have been received in this reporting quarter.



### 9 CONCLUSIONS

This is the fourteenth quarterly EM&A report prepared for the operation phase of EcoPark and covers August to October 2010.

At present, there are eight tenants in EcoPark. As of end October 2010, six tenants (Yan Oi Tong, Shiu Wing, Champway, Hung Wai, Li Tong and St. James') have commenced recycling activities within their lots. Two tenants (Telford and Cosmos) have not commenced recycling activities as they are still constructing their premises. The following throughputs occurred during the reporting quarter:

- Yan Oi Tong: 207,368kg of waste plastics was received and 137,324kg was processed. 45,535kg of general refuse was generated from mixed waste plastics.
- Shiu Wing: 2,435,510kg of waste metal was delivered to and processed at the tenant lot, producing the same amount of sheared heavy ferrous scrap on site. No waste was generated.
- Champway: 326,248kg of cooking oil and 511,540kg of grease-trap waste were
  delivered to the site, producing 756,236kg of treated cooking oil, 543,000kg of
  biodiesel and 27,150kg of glycerine. 81,553kg of waste was generated, including
  43,708kg of organic waste and 37,845kg of water waste (semi-solid and slurry
  inclusive).
- Hung Wai: 833,620kg of waste wood was delivered to and processed at the site, resulting in the same amount of wood chips as product output. No waste was generated.
- **Li Tong**: 43,774kg of WEEE was delivered to the site, producing 3,978kg of metals and 12,004kg of non-metals. No waste was generated.
- St James': 3,500kg of WEEE was delivered to the site, producing 190kg of repaired / refurbished EEE. No waste was generated.
- Telford: Although recycling activities are not currently being carried out, 22,700kg of waste plastics were delivered to Telford's lot.

In terms of monitoring, only quarterly monitoring of LFG is required during operation phase EM&A and "following construction". As the construction of Phase 1 of EcoPark has been completed, operation phase LFG monitoring for Phase 1 has been carried out since October 2009. The LFG monitoring of this reporting quarter was undertaken on 27 October 2010, and no action / limit level exceedance was recorded. LFG monitoring for Phase 2 of EcoPark continues to be carried out by the works contractor.

The ET has conducted monthly site inspections based on the approved checklist. Since October 2009, the checklist has been used in the monthly site inspections for various tenants. Environmental deficiencies and general observations noted during the monthly site inspections were detailed in **Section 7**. Remedial actions were recommended to tenants, and the remedial status shall be followed up in the next monthly site inspection.

In the coming quarter, the operation phase LFG monitoring for Phase 1 shall continue. As advised by the Operator, the Phase 2 construction was completed in October 2010; as a result, the operation phase LFG monitoring for Phase 2 shall commence in the next reporting quarter. The PRC for Telford will be revised and further reviewed pending receipt of further information from tenant.



## **APPENDIX 1**

**Environmental Mitigation Measures** (from the Implementation Schedule)



EIA Ref.	EM&A Ref.	Environmental Protection Measures Identified in the Implementation Schedule that are Applicable to the Operation Phase of EcoPark	Location / Duration of Measures / Timing of Completion of Measures	Implementation Agent	Relevant Legislation and Guidelines
General			1	'	•
5.5.23 to 5.5.25, 10.2.24 & 10.2.37	4.2.5 to 4.2.8	The Operator shall develop and implement an Emergency Response Plan (ERP) that lists the procedures to be followed in case of fire, fuel or chemical spillage or other emergency within the EcoPark.	Throughout the duration of the operation.	Operator	
12.2	7.2	No process shall be allowed to operate within EcoPark without approval from WFBU. Approval will be based on the ten-step Process Review, which may include a Design Audit if deemed to be necessary.	Throughout the duration of the operation.	ET IEC Project Proponent	
	8.1.2	All reports (including Process Review Checklists and any Design Audits) shall be prepared and certified by the ET, verified by the IEC and approved by the Project Proponent.	Throughout the duration of construction works until construction is substantially completed. Throughout the duration of the operation.	ET IEC Project Proponent	
12.3	7.3	The Operator shall prepare and implement an Environmental Management Plan (EMP) to define mechanisms for achieving the environmental requirements specified in the EIA, EP and in statutory regulations.	Throughout the duration of the operation.	Operator	
Air Quality	y				
13.2		The Operator shall ensure that the EcoPark "base case" assumptions for air quality shown in Table 13.1 of the Final EIA Report are met by tenants, as a whole.	Throughout the duration of the operation.	Operator	Table 13.1 of the Final EIA Report
Water Qua	ality				1
5.4.11 & 5.6.7		To minimise the chance of accidental spillage during loading and unloading, and thereby reduce marine water quality impacts, well established cargo handling guidelines should be followed.	Adjacent to EcoPark marine frontage when loading or unloading goods.	Operator Operators of bulk carriers	Sections 5 & 6 of IMO Code of Practice for the Safe Loading/Unloading of Bulk Carriers
5.5.19		Contaminated water collected in the surface drainage systems shall be treated at the WTF or other appropriate treatment facility.	Within EcoPark throughout the life of the facility.	Operator	
5.5.23 to 5.5.25	4.2.5 to 4.2.7	An Emergency Response Plan (ERP) will be formulated to address various accident scenarios. The ERP will be certified by the Environmental Team (ET) and verified by the Independent Environmental Checker (IEC) under the operation EM&A programme.	Within EcoPark throughout the life of the facility.	Operator	
5.6.4		For uncovered areas where recovery process identified as causing potentially high level of contamination are located, stop-logs will be installed in the perimeter drainage system to isolate contamination.	Within EcoPark throughout the life of the facility.	Operator	



EIA Ref.	EM&A Ref.	Environmental Protection Measures Identified in the Implementation Schedule that are Applicable to the Operation Phase of EcoPark	Location / Duration of Measures / Timing of Completion of Measures	Implementation Agent	Relevant Legislation and Guidelines
	4.2.2	The ET should develop an audit checklist, with the agreement of the IEC, to ensure that each mitigation measure is implemented when appropriate and operated correctly when implemented.	Within EcoPark throughout the life of the facility.	ET with IEC	
Waste Ma	ınagemer	nt			
6.8.7	5.2.4	The Operator should register with EPD as a chemical waste producer.	Within EcoPark throughout the life of the facility.	Operator	Waste Disposal (Chemical Waste) (General) Regulation
6.8.16		The dust collected by any air pollution control equipment installed by tenants must be tested to ensure compliance for landfill disposal.	Within EcoPark throughout the life of the facility.	Operator	Practice Note for disposal of dusty waste at landfills & Admission Ticket System
6.8.18 & 6.8.22	5.2.4	Sludge will be disposed of at WENT landfill, or at any future dedicated sludge treatment facility. Sludge will be collected by a Licensed collector at regular intervals, as determined by the operation of the WTF	Within EcoPark throughout the life of the facility.	Operator	
6.8.21	5.2.4	Chemical wastes shall be stored in appropriate containers in a covered area. "No Smoking" signs will be clearly displayed to prevent accidental ignition of flammable materials. Drip trays capable of storing 110% of the volume of the largest container will be used to mitigate possible leakage.	Within EcoPark throughout the life of the facility.	Operator	Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
	5.2.3 & 5.2.5	The ET should develop an audit checklist, with the agreement of the IEC, to ensure that each mitigation measure is implemented when appropriate and operated correctly when implemented.	Within EcoPark throughout the life of the facility.	ET with IEC	
Preventio	n of Con	taminated Land			
7.3.1	5.3.2	Any spillages of contaminating material shall be cleaned up immediately through the use of an absorbent. Any such used material should then be considered chemical waste and disposed of appropriately.	Within EcoPark throughout the life of the facility.	Operator	
7.3.3		Any areas within the lot to be used for recycling processes shall be concrete paved before recycling activities commence.	Within EcoPark throughout the life of the facility.	Operator	
7.3.5	5.3.2	During operation, the greatest risk of land contamination will come from storage of chemical wastes, therefore the measures should be followed:	Within EcoPark throughout the life of the facility.	Operator	
		<ul> <li>All chemical storage areas shall be provided with locks and be sited on sealed areas. The storage areas shall be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled oil and chemicals from contaminating the ground.</li> </ul>			
		Management of chemical waste is implemented through the control of waste storage, labelling of waste, transportation and treatment of chemical waste at an appropriate facility.			



EIA Ref.	EM&A Ref.	Environmental Protection Measures Identified in the Implementation Schedule that are Applicable to the Operation Phase of EcoPark	Location / Duration of Measures / Timing of Completion of Measures	Implementation Agent	Relevant Legislation and Guidelines
		<ul> <li>Chemical wastes will be collected, stored and disposed of in accordance with the Regulation. Disposal of other construction waste will be undertaken by Licensed contractors in accordance with applicable statutory requirements in the WDO.</li> </ul>			Waste Disposal (Chemical Waste) (General) Regulation
		Chemical wastes shall be handled according to the relevant code of practice. Spent chemicals shall be stored and collected by an approved operator for disposal at a licensed facility in accordance with the relevant regulation.			Code of Practice on the Packaging, Labelling and Storage of Chem Wastes & Chemical Waste (General) Regulation
	5.3.3	The ET should develop an audit checklist, with the agreement of the IEC, to ensure that each mitigation measure is implemented when appropriate and operated correctly when implemented.	Within EcoPark throughout the life of the facility.	ET with IEC	
Landfill G	as				
8.7.10 & 8.7.11	6.1.2	<ul> <li>Alert workers and visitors of possible LFG hazards</li> <li>Prohibit smoking and open fires on site</li> <li>Conduct regular (quarterly) LFG monitoring at mobile offices, equipment stores, etc.</li> </ul>	Within EcoPark throughout the life of the facility.	Operator	
	6.4.3	Following construction, routine monthly monitoring may be required at service voids and utility boxes. The monitoring requirement and specific locations of monitoring points shall be established based on the findings of the monitoring carried out during construction (i.e. if no LFG is detected during construction then no routine monitoring is required). The need for continued monitoring shall, however, be reviewed through discussion with EPD.	Within EcoPark throughout the life of the facility.	Operator	
Hazard to	Life			•	
10.4.3		Building height limit within EcoPark shall be applied to structures within which people may work at elevated levels.	Within EcoPark throughout the life of the facility.	Operator	EIA Report Table 10.2
Landscap	oe and Vis	sual			
9.4.4		It recommended that this commonality be promoted throughout EcoPark by the Operator and adopted by tenants, if practicable.	Within EcoPark throughout the life of the facility.	Operator	



## **APPENDIX 2**

**Environmental Requirements in Tenancy Agreement** 



#### **GENERAL ENVIRONMENTAL RESPONSIBILITIES**

- 9.1 The Tenant shall at its own cost(s) comply with and shall ensure that the Premises is used, designed, constructed, operated and maintained in accordance with:-
  - (a) All relevant Ordinances, by-laws, regulations, statutory technical memorandums, codes of practice, rules, non-statutory guidance notes, schemes and abatement notices for the time being in force in Hong Kong including those relating to the environment and governing the control of any form of pollution (see specific Ordinances mentioned hereinbelow) and licensing requirements under relevant Ordinances and regulations.
  - (b) All information, mitigation measures, prohibitions, restrictions, recommendations and requirements under the Environmental Impact Assessment Report for Development of an EcoPark in Tuen Mun Area 38 with Appendices, i.e. the EIA Report (Register No.: AEIAR-086/2005) dated April 2005, the Final EM&A Manual dated April 2005, the application documents including all attachments (Application No. AEP-226/2005) and other relevant documents in the Register (or in any other places, any internet websites or by any other means as specified by the Director), including the prohibitions and mitigation measures for processes in Table 14.1 and the material throughputs, processes and remarks in Table B.1 of the EIA Report (in so far as applicable).
  - All information, conditions, submissions, mitigation measures, orders, notices, (c) requirements, prohibitions, restrictions and time limits under the Environmental Permit No. EP-226/2005 as amended by the Variation of Environmental Permit – Application No.VEP-221/2006 (including updated information about the Permit, any amended permit and any further permit) and all mitigation measures recommended and to be recommended in submissions that shall be deposited with or approved by the Director as a result of permit conditions contained in the Environmental Permit No. EP-226/2005 as amended by the Variation of Environmental Permit - Application No.VEP-221/2006 (including updated information about the Permit, any amended permit and any further permit). The Tenant shall refer to, inter alia, Conditions 4.1 to 4.14 (and Annexes A and B) and Conditions 3.7 and 3.8 (and Figures 2 and 3) of the Environmental Permit No. EP-226/2005 as amended by the Variation of Environmental Permit - Application No.VEP-221/2006 regarding measures to mitigate air quality impact, measures to mitigate hazard to life impact, measures to prevent land contamination, measures to mitigate landfill gas hazard, maintenance of landscape and visual measures (see also hereinbelow regarding Condition 5 of the Environmental Permit and specified Ordinances).
  - (d) All information, conditions, submissions, mitigation measures, orders, notices and requirements under ongoing surveillance and monitoring activities during all stages of the Project and during the tenancy under the Tenancy Agreement (e.g. any additional mitigation measures recommended and to be recommended under the Process Review and Design Audit (carried out and to be carried out in accordance with the EM&A Manual) for various environmental impacts including, but not limited to, noise pollution, air quality, hazard to life, landfill gas hazard, landscape and visual measures, waste management and land contamination).
  - (e) All recommendations referred to in the documents of the EIAO Register which are not expressly referred to in Environmental Permit No. EP-226/2005 as amended by the Variation of Environmental Permit Application No.VEP-221/2006 and any amended Environmental Permit (unless expressly excluded or impliedly amended in the Environmental Permit No. EP-226/2005 as amended by the Variation of Environmental Permit Application No.VEP-221/2006 and any amended Environmental Permit).
- 9.2 Further to Condition Nos. 6 and 8 hereinabove, the Tenant shall at its own cost provide relevant environmental monitoring data, information, documents and assistance to the Director and/or the Environmental Protection Department and shall permit authorised representatives of the Environmental Protection Department to access, inspect, take samples and monitor the Premises and operations for the Process Review and the Design Audit carried out and/or to be carried out pursuant to Conditions 4.1 and 5 of the Environmental



Permit No. EP-226/2005 as amended by the Variation of Environmental Permit – Application No.VEP-221/2006 (and any updated Permit, amended permit and further permit).

- 9.3 If the Tenant's operations (i.e. activities and facilities for recovery and/or recycling and/or reprocessing) are not covered by the EIA Report and/or deviate from the development parameters mentioned in inter alia the EIA Report, the Environmental Permit No. EP-226/2005 as amended by the Variation of Environmental Permit - Application No.VEP-221/2006 (including the parameters at Annex A) and/or any environmental licence (e.g. the Water Treatment Facility ("WTF") Discharge Licence), and if additional mitigation measures are not available or are not effective in the opinion of the Director, to ensure compliance with the EIA Report, the Environmental Permit No. EP-226/2005 as amended by the Variation of Environmental Permit - Application No.VEP-221/2006 (including any updated Permit, amended permit and further permit) and the relevant environmental licence(s), the Tenant shall comply with any modified parameters and/or the Tenant shall immediately modify its operations in such a way that the findings and requirements of the EIA Report, the Environmental Permit No. EP-226/2005 as amended by the Variation of Environmental Permit - Application No.VEP-221/2006 (including any updated Permit, amended permit and further permit) and the environmental licence(s) are complied with and shall immediately cease to continue the offending part of the operations or activity in question.
- 9.4 The Tenant shall at its own cost(s) apply for, obtain, renew, maintain and comply with all the relevant licences related to compliance with all relevant Ordinances, by-laws, regulations, statutory technical memorandums, codes of practice, rules, non-statutory guidance notes, schemes, abatement notices and the environmental permits for the time being in force in Hong Kong (including those relating to the environment and governing the control of any form of pollution). The Tenant shall obtain, renew and comply with all the said licences within the relevant time limits (in any event, within one (1) calendar month of the date of signing and/or execution of the Tenancy Agreement), shall comply with all abatement notices, orders, directions and requests of the relevant authorities and public officers and shall be responsible for paying all relevant fees, costs, fines and penalties.
- 9.5 The Tenant shall not do anything or omit to do anything which would cause, contribute to or involve a breach or potential breach by the Director relating to any of the matters mentioned in Conditions 9.1 to 9.4 hereinabove (and other Conditions hereinbelow).
- 9.6 The Tenant shall fully indemnify the Government and/or the Director for any fees, costs, damages, expenses, fines, penalties, losses and claims arising (a) out of any breach of any of the matters mentioned in inter alia Conditions 9.1 to 9.4 hereinabove (and other Conditions hereinbelow) or (b) from the use of the Premises or (c) out of any works carried out at any time during the term to or at the Premises or (d) out of anything now or during the term attached to or projecting from the Premises or (e) from any neglect or default by the Tenant or by its respective servants or agents or by any express licensee of the Tenant.

#### SPECIFIC ENVIRONMENTAL RESPONSIBILITIES

#### Air Pollution

- 10. Save with an appropriate exemption under the Air Pollution Control Ordinance (Cap. 311 of the Laws of Hong Kong) any regulations made thereunder and any amending legislation, the Tenant shall not install or permit or suffer to be installed upon the Premises or any part thereof or any building(s) or structure(s) or part of any building(s) or structure(s) erected or to be erected thereon any furnace, oven, chimney or flue or any other combustion equipment or use or permit or suffer to be used any fuel or any method or process of manufacture or treatment that might in any circumstance result in, cause or contribute to the discharge or emission of any pollutant or any noxious, harmful or corrosive matter, whether it be in the form of gas, smoke, liquid, solid or otherwise (including but not limited to air pollutant as defined in Section 2 of the Air Pollution Control Ordinance (Cap. 311 of the Laws of Hong Kong)), which exists or which is imminent, without the prior written approval of the Director.
- 11. No alteration to the installation and method of manufacture shall be made without the prior written consent of the Director. In any event, the Tenant shall at its own cost(s) comply with, inter alia, Conditions 4.2 to 4.7 and Annex A of the Environmental Permit No. EP-226/2005 as amended by the Variation of Environmental Permit Application No.VEP-221/2006 regarding



design, installation and operation of chimney, location of fresh air intakes and use of ultra-low sulphur or other cleaner fuel(s) as agreed by the Director (and the conditions of any updated Permit, amended permit and further permit regarding measures to mitigate air quality impact), good practices and relevant provisions of the EIA Report and Final EM&A Manual.

#### Noise Pollution

- 12. The Tenant shall take all necessary measures as may be required by and to the satisfaction of the Director to ensure that the operation of all plant and equipment, installed or used on the Premises or in any building(s) or structure(s) or any part of any building(s) or structure(s) erected or to be erected thereon, will not result, not cause and/or will not contribute any noise (which exists or which is imminent) which disturbs or annoys the residents or occupiers of any adjoining or neighbouring lot or lots or premises, or causes and/or contributes to disturbance to the general public under the Noise Control Ordinance (Cap. 400 of the Laws of Hong Kong) any regulations made thereunder and any amending legislation.
- 13. The decision of the Director as to whether any such plant and equipment are causing disturbance or annoyance as aforesaid shall be final and binding on the Tenant.

#### Waste Management

- 14. The Tenant shall not permit, allow or suffer any fuel or chemical and any sewage, waste water or effluent containing sand, cement, silt or any suspended or dissolved material to flow, escape or run from the Premises onto any adjoining land or allow any waste matter which does not form part of the recovery and/or recycling and/or reprocessing operation or is not part of the final product of such operation to be deposited, kept, held or stored anywhere within the Premises and other areas of EcoPark. The Tenant shall at its own cost(s) have all such matters and all waste arising from recycling activities, chemical waste arising from maintenance of plant and equipment, sewage sludge (from WTF) and general daily waste from the operation removed from the Premises or any building(s) or structure(s) or any part of any building(s) or structure(s) erected or to be erected thereon in a proper manner to the satisfaction of the Director.
- 15. In any event, the Tenant shall at its own cost(s) comply with, inter alia, Conditions 4.11 and 4.12 of the Environmental Permit No. EP-226/2005 as amended by the Variation of Environmental Permit Application No.VEP-221/2006 regarding paving all areas of the Premises with concrete/using concrete hardstanding and siting all fuel tanks and chemical storage areas on the specified sealed areas, respectively (and comply with the conditions of any updated Permit, amended permit and further permit regarding measures to prevent land contamination). The Tenant shall at its own cost(s) comply with relevant provisions of the Waste Disposal Ordinance (Cap.354 of the Laws of Hong Kong) good practices and relevant provisions of the EIA Report and Final EM&A Manual.

#### Water Pollution

- 16. In the event that the Tenant produces, generates, permits, causes, allows or suffers any discharge which is subject to control under the Water Pollution Control Ordinance (Cap. 358 of the Laws of Hong Kong) any regulations made thereunder and any amending legislation, and is not covered by a WTF Discharge Licence issued under the Water Pollution Control Ordinance (Cap. 358 of the Laws of Hong Kong) the Tenant shall apply to the Director for a licence and comply with the terms and conditions stipulated in the licence and the WTF Discharge Licence at the Tenant's own cost(s). Otherwise, the Tenant is not allowed to discharge directly or indirectly or to produce, generate, permit, cause, allow or suffer any discharge into any public sewer, storm-water drain, channel, stream-course, sea or any area inside or outside the Premises any trade effluent or foul or contaminated water or cooling or hot water. Subject to the said licence from the Director and WTF Discharge Licence, the Tenant shall at its own cost(s) separate, collect, discharge and send all process or industrial wastewater to the WTF for treatment to the standard required for discharge into a sewer leading to the sewage treatment works at Pillar Point or other treatment works specified in the licence.
- 17. Subject to obtaining advance written approval of the Director, the Tenant shall at its own cost(s) provide, install, operate and maintain its own waste water pre-treatment plants within the Premises if such process or industrial wastewater could not meet the influent limits / exceeds the maximum influent criteria of the WTF (in accordance with paragraph 7.2.9 of the



Final E&MA Manual). The Tenant shall at its own cost(s) separate, collect, discharge and send all domestic wastewater (i.e. other than process or industrial wastewater) to the Pillar Point Sewage Treatment Works directly for treatment or other treatment works specified in the licence.

18. In any event, the Tenant shall prevent any spilled materials from entering the surface water drainage system and prevent contamination of the sea at its own cost(s) by, inter alia, providing, installing, operating and maintaining stop-logs or interceptors in the surface water drainage system and at the marine frontage area, respectively, or as required by the licence. The Tenant shall at its own cost comply with relevant provisions of the Dumping at Sea Ordinance (Cap 466 of the Laws of Hong Kong) good practices and relevant provisions of the EIA Report and Final EM&A Manual.

#### Hazard to Life Impact

- 19. To mitigate hazard to life impact, the Tenant shall comply with, inter alia, Conditions 4.8 to 4.10 of the Environmental Permit No. EP-226/2005 as amended by the Variation of Environmental Permit Application No.VEP-221/2006 (and comply with the conditions of any updated Permit, amended permit and further permit regarding measures to mitigate hazard to life impact) and shall not:-
  - (a) Bring, keep, store or transport chlorine within the Premises and other areas of EcoPark;
  - (b) Bring, keep, store, locate or transport dangerous goods, substances and fuels supporting combustion including oxygen, acetylene, hydrogen peroxide, rubber tyres and diesel within 10 metres from the boundary of the site of EcoPark; and
  - (c) Exceed the building height restrictions for buildings on the Premises which are on/near the western boundary of the site of EcoPark as mentioned in Annex B to the Environmental Permit No. EP-226/2005 as amended by the Variation of Environmental Permit Application No.VEP-221/2006 (including any updated Permit, amended permit and further permit).

#### Landfill Gas Hazard

20. To mitigate landfill gas hazard, the Tenant shall at its own cost(s) comply with, inter alia, Condition 4.13 of the Environmental Permit No. EP-226/2005 as amended by the Variation of Environmental Permit – Application No.VEP-221/2006 regarding raising clear of the ground all buildings and enclosed structures as specified in inter alia Condition 3.7 (and comply with the conditions of any updated Permit, amended permit and further permit regarding measures to mitigate hazard to life impact).

#### Landscape and Visual Impacts

21. To mitigate landscape and visual impacts, the Tenant shall at its own cost(s) comply with, inter alia, Condition 4.14 of the Environmental Permit No. EP-226/2005 as amended by the Variation of Environmental Permit – Application No.VEP-221/2006 regarding maintaining landscape, planting, treatment and mitigation measures as specified in inter alia Condition 3.8 and Figure 3 (and comply with the conditions of any updated Permit, amended permit and further permit regarding measures to mitigate landscape and visual impacts).



# **APPENDIX 3**

Material and Waste Throughputs



# A3.1 YAN OI TONG LIMITED (P7)

Date	Waste Input (kg)	Product Output (kg)	Waste Disposal (kg)		
Date	Waste Plastic	Processed Plastic (sorted/baled)	General Refuse		
Apr-10 [Note 1]	80,878	44,790	14,849		
May-10 [Note 1]	23,806	23,414	4,666		
Jun-10 <sup>[Note 1]</sup>	91,852	22,366	7,321		
Jul-10 [Note 1]	40,878	30,901	12,669		
Aug-10	29,603	34,240	21,745		
Sep-10	96,868	47,638	13,636		
Oct-10	80,897	55,446	10,154		

#### Note:

1. Updated throughout data as advised by Tenant after the corresponding Quarterly EM&A Report was submitted



# A3.2 SHIU WING STEEL LIMITED (EP08-03)

	Waste Input (kg)		Product Output (kg)							
Date	Waste Metal / Steel Scrap / Construction Waste	Light Ferrous Scrap (Baled)	Heavy Ferrous Scrap (Sheared)	Total	Non-ferrous Scrap / General Refuse					
Apr-10 [Note 1]	220,000	-	220,000	220,000	-					
May-10	-	-	-	-	-					
Jun-10	-	-	-	-	-					
Jul-10	1,396,000	-	1,396,000	1,396,000	-					
Aug-10	398,000	-	398,000	398,000	-					
Sep-10	870,660	-	870,660	870,660	-					
Oct-10	1,166,850	-	1,166,850	1,166,850	-					

#### Note:

1. Updated throughout data as advised by Tenant after the corresponding Quarterly EM&A Report was submitted



# A3.3 CHAMPWAY TECHNOLOGY LIMITED (EP07-03)

	1	Waste Input (k	g)		Product C	Output (kg)			Waste Di	sposal (kg)	
Date	Cooking Oil	Grease Trap Waste	Total	Treated Cooking Oil	Biodiesel	Glycerin	Total	Inorganic Waste	Organic Waste	Water Waste [Note 1]	Total
Oct-08	120,000	-	120,000	-	-	-	-	-	-	-	-
Nov-08	8,000	-	8,000	-	-	-	-	-	-	-	-
Dec-08	2,000	-	2,000	-	-	-	-	-	-	-	-
Jan-09 [Note 2]	93,454	-	93,454	86,912	-	-	86,912	-	4,673	1,869	6,542
Feb-09	86,855	-	86,855	80,775	-	-	80,775	-	4,343	1,737	6,080
Mar-09	88,883	-	88,883	82,661	-	-	82,661	-	4,444	1,778	6,222
Apr-09	82,530	-	82,530	76,753	-	-	76,753	-	4,127	1,650	5,777
May-09	91,022	-	91,022	84,650	-	-	84,650	-	4,551	1,820	6,371
Jun-09	114,143	-	114,143	106,153	-	-	106,153	-	5,707	2,283	7,990
Jul-09	106,287	-	106,287	98,847	-	-	98,847	-	5,314	2,126	7,440
Aug-09	115,096	58,190	173,286	161,156	-	-	161,156	-	8,664	3,466	12,130
Sep-09	125,091	41,950	167,041	155,348	-	-	155,348	-	8,352	3,341	11,693
Oct-09	145,139	324,800	469,939	437,043	-	-	437,043	-	23,497	9,399	32,896
Nov-09	111,053	215,600	326,653	303,787	-	-	303,787	-	16,333	6,533	22,866
Dec-09 [Note 2]	117,688	85,600	203,288	189,058	-	-	189,058	-	10,164	4,066	14,230
Jan-10	122,673	19,780	142,453	132,481	-	-	132,481	-	7,123	2,849	9,972
Feb-10	105,641	-	105,641	98,246	-	-	98,246	-	5,282	2,113	7,395
Mar-10	110,579	-	110,579	102,838	-	-	102,838	-	5,529	2,212	7,741
Apr-10	110,624	69,780	180,404	167,776	-	-	167,776	-	9,020	3,608	12,628
May-10	110,943	142,630	253,573	235,823	116,510	58,256	410,589	-	12,679	5,071	17,750
Jun-10	113,741	74,940	188,681	175,474	204,770	10,239	390,483	-	9,434	3,774	13,208
Jul-10	117,597	150,840	268,437	249,646	354,730	17,737	622,113	-	13,422	4,993	18,415
Aug-10	123,159	134,180	257,339	216,418	43,440	2,172	262,030	-	14,685	26,236	40,921



	1	Waste Input (k	g)		Product C	output (kg)		Waste Disposal (kg)				
Date	Cooking Oil	Grease Trap Waste	Total	Treated Cooking Oil	Biodiesel	Glycerin	Total	Inorganic Waste	Organic Waste	Water Waste [Note 1]	Total	
Sep-10	107,014	145,980	252,994	235,285	374,180	18,709	628,174	-	12,650	5,060	17,710	
Oct-10	96,075	231,380	327,455	304,533	125,380	6,269	436,182	-	16,373	6,549	22,922	

#### Notes:

- 1. Water waste includes slurry and semi-solid waste and is disposed of at landfill
- 2. Updated throughout data as advised by Tenant after the corresponding Quarterly EM&A Reports were submitted



# A3.4 HONG KONG HUNG WAI WOODEN BOARD COMPANY (EP06-034)

Dete	Waste Input (kg)	Product Output (kg)	Waste Disposal (kg)
Date	Waste Wood	Wooden Board	General Refuse
Jun-08	21,000	-	-
Jul-08	7,000	-	-
Aug-08	-	-	-
Sep-08	8,000	-	-
Oct-08	1,000	-	-
Nov-08	1,000	-	-
Dec-08	-	-	-
Jan-09	60	-	-
Feb-09	60	-	-
Mar-09	-	-	-
Apr-09	-	-	-
May-09	-	-	-
Jun-09	-	-	-
Jul-09	-	-	-
Aug-09	-	-	-
Sep-09	-	-	-
Oct-09	-	-	-
Nov-09	-	-	-
Dec-09	-	-	-
Jan-10	-	-	-
Feb-10	-	-	-
Mar-10	-	-	-
Apr-10	141,880	-	-
May-10	1,758,000	1,758,000	-



Date	Waste Input (kg)	Product Output (kg)	Waste Disposal (kg)
Date	Waste Wood	Wooden Board	General Refuse
Jun-10	1,000,000	1,000,000	-
Jul-10	90,000	90,000	-
Aug-10	204,000	204,000	-
Sep-10	264,500	264,500	-
Oct-10	365,120	365,120	-



# A3.5 LI TONG GROUP (EP07-02)

	Waste Input (kg)		Product Output (kg)						
Date	WEEE	Metals (e.g. ferrous materials, aluminium)	Non-metals (e.g. fibres, plastics)	Total	General Refuse				
Sep-10	8,103	430	3,085	3,515	-				
Oct-10	35,672	3,548	8,919	12,467	-				



# A3.6 ST. JAMES' SETTLEMENT (P5)

	Waste Input (kg)	(kg) Product Output (kg)								
Date	WEEE	Repaired / Refurbished EEE	Reusable Parts	Metals (e.g. ferrous materials, aluminium)	g. ferrous materials, (e.g. fibres, plastics)		General Refuse			
Oct-10	3,500	190	-	-	-	190	-			



# A3.7 HONG KONG TELFORD ENVIROTECH GROUP LIMITED (EP08-01)

Dete	Waste Input (kg)	Product Output (kg) [Note 1]	Waste Disposal (kg) [Note 1]
Date	Waste Plastic	PO, PE, PET, PWC	General Refuse
Jul-09	20,000	-	-
Aug-09	-	-	-
Sep-09	-	-	-
Oct-09	-	-	-
Nov-09	-	-	-
Dec-09	-	-	-
Jan-10	-	-	-
Feb-10	-	-	-
Mar-10	-	-	-
Apr-10	-	-	-
May-10	2,600	-	-
Jun-10	5,300	-	-
Jul-10	13,000	-	-
Aug-10	13,000	-	-
Sep-10	-	-	-
Oct-10	9,700	-	-

#### Note:

1. Tenant has not yet commenced recycling process within the lot



# **APPENDIX 4**

Calibration Certificate of Infrared Gas Analyser

#### FUGRO TECHNICAL SERVICES LIMITED

MateriaLab Division, Fugro Development Centre, 5 Lok Yi Street, 17 M.S. Castle Peak Road, Tai Lam, Tuen Mun, N.T., Hong Kong.

: +852-2450 8233 Fax : +852-2450 6138 E-mail: matlab@fugro.com.hk Website: www.materialab.com.hk

MateriaLab

# REPORT ON CALIBRATION OF INFRA RED GAS ANALYSER

Client

Fugro Technical Services Limited - MateriaLab Division

Sample description

One sample of Infra Red Gas Analyser (GA94A)

Sample identification

E / 084 / 1

Serial number

GA3385

Test required

Calibration

Date of calibration

06/07/2010

Next calibration date

06/01/2011

Method used

In-house method (Comparison with Standard Gas)

#### Results:

Parameters	Standard Gas Concentration, % volume	Infra Red Gas Analyser Reading, % volume	Deviation, % volume
Methane (CH₄)	1.02	1.0	-0.02
Carbon dioxide (CO <sub>2</sub> )	1.01	1.0	-0.01
Oxygen (O <sub>2</sub> )	1.03	0.9	-0.13

Calibrated by

C. F. Leung

Certified by

Assistant Manager -

Approved Signatury: Raymond K. F. Wong Chemical & Environmental

Date

Note: This report refers only to the sample(s) tested.



# **APPENDIX 5**

**Graphical Plots of LFG Monitoring** 

# Contract No. EP/SP/53/06 Provision of Management Services for EcoPark in Tuen Mun Area 38 EM&A Services

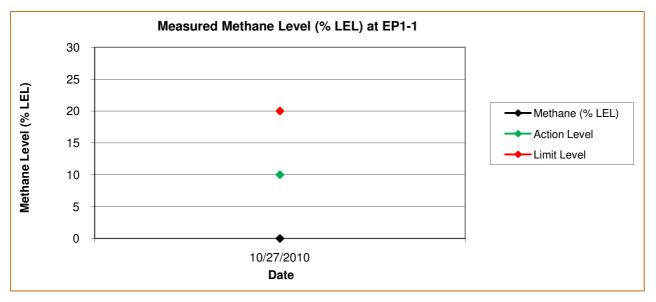
#### Landfill Gas Monitoring Results - Oct 2010

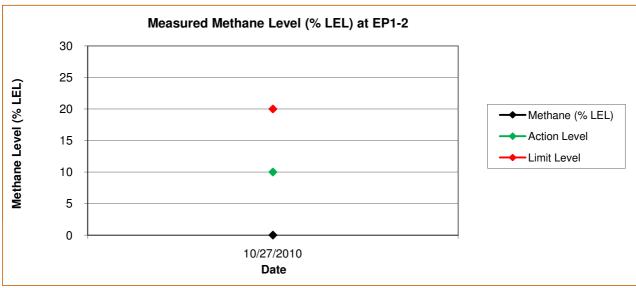
								М	easuremer	nt Results		Action Level		el	Limit Level			
Monitoring Station ID	Monitoring Locations	Date	Weather Conditions	Temperature (degree)	Start Time	End Time	Met	hane	Oxygen	Carbon Dioxide	Barometric Pressure	Methane	Oxygen	Carbon Dioxide	Methane	Oxygen	Carbon Dioxide	Remarks
							% v/v	% LEL	% v/v	% v/v	mBar (absolute)	% LEL	% v/v	% v/v	% LEL	% v/v	% v/v	
EP1-1	Inside the landscaping area of Administration Building				09:40	09:45	0.0	0	21	0.0	1018							Nil
EP1-2	PCCW below- ground chamber outside Lot EP08- 01	27-Oct-10	Fine	21	09:50	09:55	0.0	0	21	0.0	1018	> 10	< 19	> 0.5	> 20	< 18	> 1.5	Nil
EP1-3	HGC Broadband below-ground chamber outside Lot EP08-03				10:05	10:10	0.0	0	20	0.0	1019							Nil

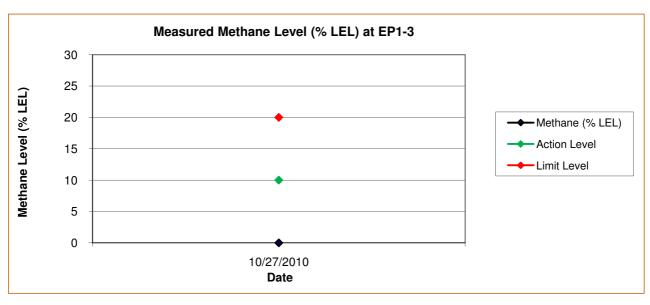
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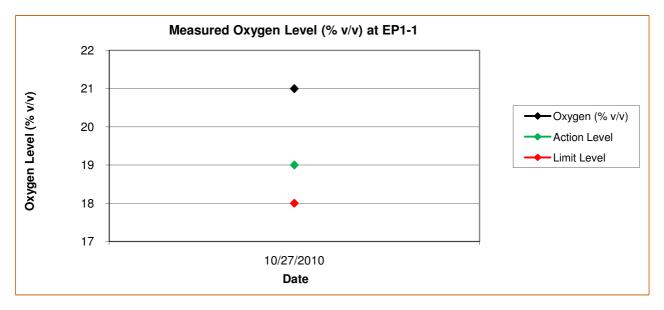
<sup>(1)</sup> Underlined figure indicates an exceedance of Action Level

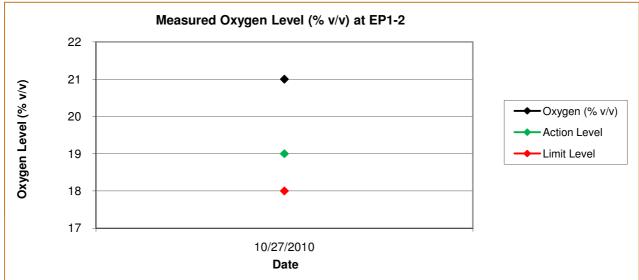
<sup>(2)</sup> Shaded area indicates an exceedance of Limit Level

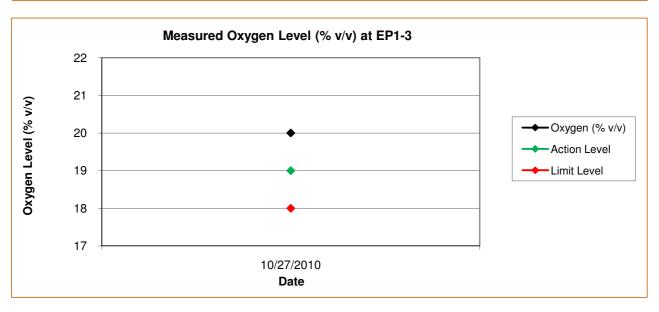


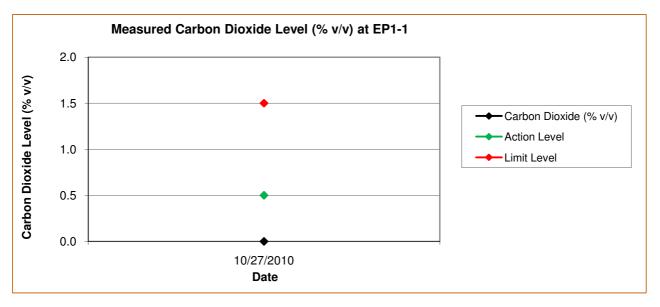


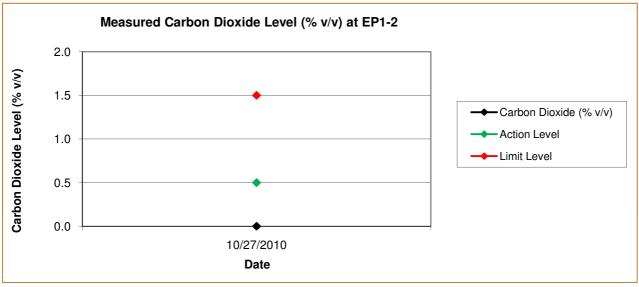


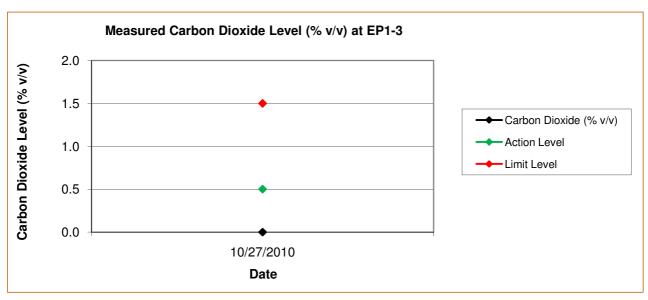


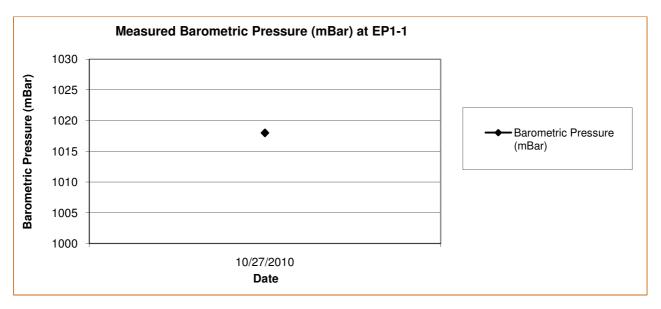


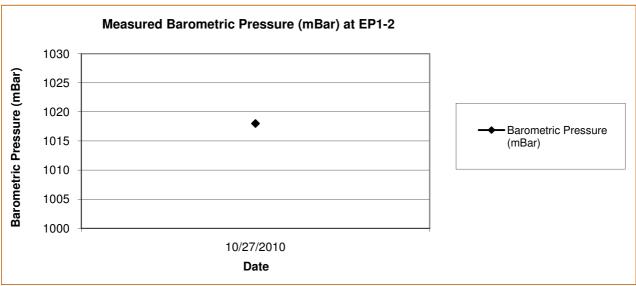


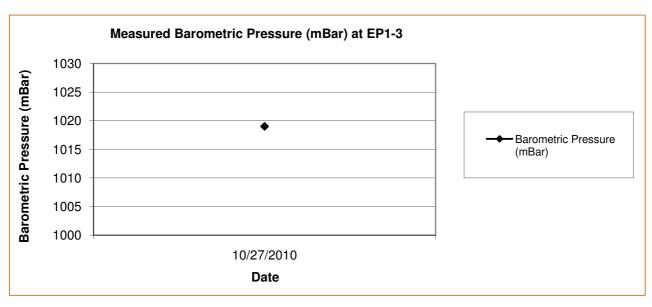














# **APPENDIX 6**

Tenant-specific Audit Checklists for the Reporting Quarter



#### **APPENDIX 6.1**

Tenant-specific Audit Checklists for the Reporting Quarter

Yan Oi Tong (P7)



	Audit Details						
Ter	nant	Yan Oi Tong Limit	ed				
Aud	dit Month	August 2010					
Lot	No.	P7		_			
Aud	dit Ref.	4		_			
Aud	dit Date	30 August 2010		Time	11:15	am	
IEC	Joint Inspection	Yes	$\boxtimes$	No			
We	ather Conditions	Fine	$\boxtimes$	Hazy		□ Ov	ercast Rain
Wir	nd	⊠ Calm		Light Bre	eze	Str	ong Wind
Ter	nperature	33 °C					
Hui	midity	Low	$\boxtimes$	Medium		☐ Hig	<b>jh</b>
1.1	1. General  Description  EP for Tenant displat entrance?	layed on notice boar	ds	Yes	No	N/A ⊠	Remarks  EP for EcoPark (EP-226/2005/A) displayed at the entrance of EcoPark. EP for tenant not
							required.
1.2	Environmental Poli	cy documented?					The Operator's Environmental Policy is documented.
1.3	Environmental Mar	nagement Plan upda	tec	l? 🛛			The Tenant's EMP is documented.
1.4	a. Emergency Res documented?	ponse Plan (ERP)					The Tenant's ERP is documented.
	b. Drill / training red	cords available?					
1.5	Employee's training	g record available?					
1.6	Any record of prose	ecution / complaint?					
1.7	Waste Managemen	nt Plan?					The Tenant has included the WMP into the EMP.



#### 2. Water Quality **Description** Yes No N/A **Remarks** Valid Effluent Discharge License available? Licence No. WT00006013-2010 2.1 $\boxtimes$ valid until 28 Feb 2015. Any wastewater treatment facility prior to 2.2 $\boxtimes$ effluent discharge? $\boxtimes$ If yes, facility is properly maintained and function normally? **Effluent Monitoring** П $\boxtimes$ As per the discharge licence, self-monitoring shall be a. Sampling / Monitoring Record available? performed when required. b. Monitoring frequency met the license $\boxtimes$ No sampling was undertaken. requirement? $\boxtimes$ c. Any exceedance? No sampling was undertaken. d. If yes, follow-up action taken? $\boxtimes$ No sampling was undertaken. Surface run-off control measures in place $\boxtimes$ 2.4 and adequately maintained? $\boxtimes$ $\Box$ П 2.5 Surface run-off discharging into drainage system? 2.6 All manholes are covered? $\boxtimes$ 2.7 Foam, oil, grease, litter or other $\boxtimes$ objectionable matters in water of nearby drain / sewer are avoided? 2.8 Drainage system is well maintained to $\boxtimes$ prevent flooding and overflow?



	Description	Yes	No	N/A	Remarks
9	Processes with high Risk of Contamination  a. Processes / activities are located under a				Works for recycling were undertaken at covered areas.
9	covered area?				
-	b. Stop-logs installed in the perimeter drainage system for uncovered areas?				Stop-logs are not required for the lots of Phase 2.
•	c. Contaminated water collected in the surface drainage systems is treated at water treatment facility / other appropriate treatment facility?				Water is unlikely to be contaminated within the lot.
10	Equipment oil and lubrication replacements are performed only in bunded maintenance area?				Only grease is used at the lot.
11	a. Oil interceptor provided for drainage discharging from maintenance area?				Not required.
-	b. If yes, oil and grease removed regularly?				
•	c. Collected by licenced collector?			$\boxtimes$	
	Cargo Handling			$\boxtimes$	Not required.
2.12	<ul> <li>a. Cargo Handling Guideline available and followed to minimise chance of accidental spillage when loading or unloading?</li> </ul>				
	b. Materials and bulk cargo are properly packed?			$\boxtimes$	



	3. Air Quality				
	Description	Yes	No	N/A	Remarks
3.1	a. Valid Specified Process License for all specified process available?				Not required
	b. SP License conditions / monitoring requirements met?				Ditto
3.2	Odour a. Any odour detected?		$\boxtimes$		
	b. If yes, can the source be identified?			$\boxtimes$	
	c. Odorous materials are covered?			$\boxtimes$	No odorous materials were found.
	d. If odour control system is installed, is it operating normally?				Ditto.
3.3	All dusty materials are sprayed with water or covered by impervious sheeting prior to any loading, unloading or transfer operation?				No dusty materials were found to be used on-site
3.4	Dust Monitoring a. Monitoring Record available?				
	b. Monitoring frequency met the requirement?				
	c. Any exceedance?			$\boxtimes$	
	d. If yes, follow-up action taken?			$\boxtimes$	
3.5	Enclosures are provided around the main dust-generating activities?			$\boxtimes$	
3.6	Open burning is avoided?	$\boxtimes$			



#### 3. Air Quality (continued) **Description Remarks** Yes No N/A 3.7 Dark smoke emitted from chimney or $\boxtimes$ There is no chimney installed onpowered plant is avoided? Vehicles and equipment are switched off $\boxtimes$ 3.8 while not in use? Approval certificate issued by the Authority $\boxtimes$ 3.9 is available for furnace, oven or chimney consuming: a. >25L of conventional liquid fuel per hour $\boxtimes$ b. >35kg of conventional solid fuel per hour c. >1,150 MJ of any gaseous fuel per hour $\boxtimes$ 3.10 Approval from Authority is available for the $\boxtimes$ use of liquid fuel with a viscosity point of ignition >30 centistokes or an equivalent viscosity? $\boxtimes$ 3.11 Dust collected by any air pollution control equipment installed by tenants must be tested to ensure compliance for landfill disposal. 3.12 a. Approval from Authority for the use of $\boxtimes$ controlled refrigerant? b. If yes, record of refrigeration equipment $\boxtimes$ service available? 3.13 All air pollution control systems are properly $\boxtimes$ maintained and function normally? 3.14 Only Ultra-Low Sulphur Diesel is used? $\boxtimes$



#### 4. Waste / Chemical Management **Description** Yes No N/A **Remarks Chemical Waste Producer Registration** $\boxtimes$ Registration No. 9211-421-4.1 Y2453-03. completed? П 4.2 Provision of sufficient waste disposal points/ $\boxtimes$ receptacles? Waste disposed of regularly and properly? $\boxtimes$ 4.3 Twice a week. $\boxtimes$ 4.4 Sorting of materials on-site for reuse or disposal to designated outlet? Record of quantities of waste generated, $\boxtimes$ 4.5 recycled and disposed properly kept and easily retrieved for inspection? Sludge is collected by a licensed collector at П $\boxtimes$ 4.6 regular intervals? Packaging of Chemical Waste $\boxtimes$ No chemical waste was produced. a. Stored in suitable container? 4.7 b. Container properly closed or sealed? $\boxtimes$ c. Spillage cleaned up immediately through $\boxtimes$ the use of an absorbent? П П $\boxtimes$ d. Approval obtained for capacity of containers > 450L? Labelling of Chemical Waste $\boxtimes$ 4.8 a. Label is securely attached, clean and visible? b. Label is in proper dimension and $\boxtimes$ bilingual? $\boxtimes$ c. Information is accurate and sufficient?



#### 4. Waste / Chemical Management (continued) **Description** Yes No N/A Remarks Storage of Chemical Waste $\boxtimes$ 4.9 a. Proper "Chemical Waste" signs are displayed? $\boxtimes$ b. Incompatible wastes separated by an impermeable partition? $\boxtimes$ c. Containers kept in receptacle of suitable material and construction (if quantity <50L) or drip trays capable of storing 110% of the volume of largest (if quantity >50L)? d. Enclosed on 3 sides with no less than 2m $\boxtimes$ in height or height of tallest container or stack of containers? e. Containers with chemical waste are $\boxtimes$ properly stored and locked at designated area which is clean and dry? f. Adequacy of area ventilation? $\boxtimes$ $\boxtimes$ g. Outdoors storage area should be covered? 4.10 Chemical wastes are collected by a $\boxtimes$ licensed chemical waste collector? (retention of trip ticket copies for 12 months) Storage of Liquid Waste $\boxtimes$ 4.11 a. Storage area floor/surface permeationproof? b. Capacity of retention structure sufficient $\boxtimes$ to accommodate contents of the largest container or 20% volume of waste in storage? c. Walls or partitions of stacked container $\boxtimes$ storage area constructed of impermeable material?



#### 5. Other Issues **Description** Yes No N/A Remarks Landfill Gas Hazard $\boxtimes$ The lot is within the LFG Consultation Zone and the Tenant (within LFG Consultation Zone) has alerted workers/visitors about 5.1 a. Workers and visitors alerted to possible possible LFG hazards. A notice is LGF hazards? also posted at the entrance. $\boxtimes$ b. Smoking and open fires prohibited? 5.2 Security lighting directed downward into the $\boxtimes$ work areas to prevent glare to the surrounding receivers? 5.3 Good housekeeping? $\boxtimes$ See Action #1. $\boxtimes$ 5.4 Any areas within the lot to be used for Most of the areas are concreterecycling processes are concrete paved? paved. $\Box$ П $\boxtimes$ 5.5 Valid calibration certificate for any monitoring equipment? **Dangerous Goods** $\boxtimes$ There were no dangerous goods stored on site. 5.6 a. Valid license for manufacturing / storing dangerous goods? b. Storage area in compliance with the $\boxtimes$ approved plan? $\boxtimes$ c. Storage area(s) has been securely locked? П $\boxtimes$ d. Total storage capacity in compliance with П the relevant statutory requirement? П $\boxtimes$ e. Proper Labelling? f. Dangerous goods properly packaged? $\boxtimes$ $\boxtimes$ 5.7 Potential stagnant pools cleared and mosquito breeding prevented?



#### **Action Items from This Audit**

No. Action

**Expected By** 

1. Refuse was observed on the bare ground within the waste storage area same as the previous audit. The Tenant was reminded to improve housekeeping.

17 Sep 2010



#### **Follow-up from Previous Audits**

No. Follow-up from Previous Audit Dated 26 July 2010

**Status** 

1. Refuse inside stormwater drains was no longer observed.

Completed

#### **Audit Summary and Sign-off**

No critical issues were identified, but the Tenant should improve the overall tidiness of the lot.

	ET	IEC*	Tenant	Operator
Organisation	SMEC Asia Ltd	Scott Wilson Ltd	Yan Oi Tong	Serco Guardian JV
Signed By	Antony WONG	-	Victor WANG	Morgan CHIU
Role	ET Leader	-	STO	Park Manager
Signature	Total		#	3

Note: \* IEC to sign-off only for a joint ET+IEC Inspection



	Audit Details		
Ten	ant	Yan Oi Tong Limited	
Date & Time		Date 29 September 2010 Time 11:15am	
Lot	No.	P7	
Aud	lit Ref.	2	
IEC	Joint Inspection	☐ Yes ⊠ No	
Wea	ather Conditions		Rain
Win	d		
Ten	nperature	31 °C	
Hun	nidity		
	1. General		
	Description	Yes No N/A Remarks	
1.1	EP for Tenant displat entrance?	ayed on notice boards /	e entrance of
1.2	Environmental Poli	cy documented?	
1.3	Environmental Mar	agement Plan updated?     The Tenant's EM documented.	1P is
1.4	a. Emergency Resp documented?	ponse Plan (ERP)	RP is
	b. Drill / training rec	cords available?	
1.5	Employee's training	record available?	
1.6	Any record of prose	ecution / complaint?	
1.7	Waste Managemer	ut Plan?	



#### 2. Water Quality **Description** Yes No N/A **Remarks** Valid Effluent Discharge License available? Licence No. WT00006013-2010 2.1 $\boxtimes$ valid until 28 Feb 2015. Any wastewater treatment facility prior to 2.2 $\boxtimes$ effluent discharge? $\boxtimes$ If yes, facility is properly maintained and See Action #1. function normally? **Effluent Monitoring** П $\boxtimes$ As per the discharge licence, self-monitoring shall be a. Sampling / Monitoring Record available? performed when required. b. Monitoring frequency met the license $\boxtimes$ No sampling was undertaken. requirement? $\boxtimes$ c. Any exceedance? No sampling was undertaken. d. If yes, follow-up action taken? $\boxtimes$ No sampling was undertaken. Surface run-off control measures in place $\boxtimes$ 2.4 and adequately maintained? $\boxtimes$ П П 2.5 Surface run-off discharging into drainage system? 2.6 All manholes are covered? $\boxtimes$ 2.7 Foam, oil, grease, litter or other $\boxtimes$ objectionable matters in water of nearby drain / sewer are avoided? 2.8 Drainage system is well maintained to $\boxtimes$ See Action #2. prevent flooding and overflow?



	Description	Yes	No	N/A	Remarks
	Processes with high Risk of Contamination	$\boxtimes$			Works for recycling were undertaken at covered areas.
.9	a. Processes / activities are located under a covered area?				
•	b. Stop-logs installed in the perimeter drainage system for uncovered areas?				Stop-logs are not required for the lots of Phase 2.
-	c. Contaminated water collected in the surface drainage systems is treated at water treatment facility / other appropriate treatment facility?			$\boxtimes$	Water is unlikely to be contaminated within the lot.
.10	Equipment oil and lubrication replacements are performed only in bunded maintenance area?			$\boxtimes$	Only grease is used at the lot.
.11	a. Oil interceptor provided for drainage discharging from maintenance area?				Not required.
-	b. If yes, oil and grease removed regularly?			$\boxtimes$	
-	c. Collected by licenced collector?				
	Cargo Handling			$\boxtimes$	Not required.
12	a. Cargo Handling Guideline available and followed to minimise chance of accidental spillage when loading or unloading?				
•	b. Materials and bulk cargo are properly packed?			$\boxtimes$	



#### 3. Air Quality N/A **Description** Yes No **Remarks** a. Valid Specified Process License for all $\boxtimes$ 3.1 Not required specified process available? $\Box$ $\boxtimes$ b. SP License conditions / monitoring Ditto requirements met? $\boxtimes$ **Odour** See Action #2. 3.2 a. Any odour detected? $\boxtimes$ b. If yes, can the source be identified? See Action #2. $\boxtimes$ c. Odorous materials are covered? $\boxtimes$ d. If odour control system is installed, is it operating normally? 3.3 All dusty materials are sprayed with water $\boxtimes$ No dusty materials were found to or covered by impervious sheeting prior to be used on-site any loading, unloading or transfer operation? **Dust Monitoring** $\boxtimes$ a. Monitoring Record available? 3.4 b. Monitoring frequency met the $\boxtimes$ requirement? П $\boxtimes$ c. Any exceedance? d. If yes, follow-up action taken? $\boxtimes$ 3.5 Enclosures are provided around the main $\boxtimes$ dust-generating activities? $\boxtimes$ Open burning is avoided?



#### 3. Air Quality (continued) **Description** Yes No N/A Remarks Dark smoke emitted from chimney or $\boxtimes$ There is no chimney installed on-3.7 powered plant is avoided? $\boxtimes$ П 3.8 Vehicles and equipment are switched off while not in use? $\boxtimes$ 3.9 Approval certificate issued by the Authority is available for furnace, oven or chimney consuming: a. >25L of conventional liquid fuel per hour $\boxtimes$ b. >35kg of conventional solid fuel per hour $\boxtimes$ c. >1,150 MJ of any gaseous fuel per hour 3.10 Approval from Authority is available for the $\boxtimes$ use of liquid fuel with a viscosity point of ignition >30 centistokes or an equivalent viscosity? 3.11 Dust collected by any air pollution control $\boxtimes$ equipment installed by tenants must be tested to ensure compliance for landfill disposal. 3.12 a. Approval from Authority for the use of $\boxtimes$ controlled refrigerant? b. If yes, record of refrigeration equipment $\boxtimes$ service available? П $\Box$ 3.13 All air pollution control systems are properly $\boxtimes$ maintained and function normally? 3.14 Only Ultra-Low Sulphur Diesel is used? $\boxtimes$



#### 4. Waste / Chemical Management **Description** Yes No N/A **Remarks Chemical Waste Producer Registration** Registration No. 9211-421-4.1 $\boxtimes$ Y2453-03. completed? П 4.2 Provision of sufficient waste disposal points/ $\boxtimes$ receptacles? Waste disposed of regularly and properly? $\boxtimes$ 4.3 Twice a week. $\boxtimes$ 4.4 Sorting of materials on-site for reuse or disposal to designated outlet? Record of quantities of waste generated, $\boxtimes$ 4.5 recycled and disposed properly kept and easily retrieved for inspection? Sludge is collected by a licensed collector at $\boxtimes$ 4.6 regular intervals? Packaging of Chemical Waste $\boxtimes$ No chemical waste was produced. a. Stored in suitable container? 4.7 b. Container properly closed or sealed? $\boxtimes$ c. Spillage cleaned up immediately through $\boxtimes$ the use of an absorbent? П П $\boxtimes$ d. Approval obtained for capacity of containers > 450L? Labelling of Chemical Waste $\boxtimes$ 4.8 a. Label is securely attached, clean and visible? b. Label is in proper dimension and $\boxtimes$ bilingual? $\boxtimes$ c. Information is accurate and sufficient?



#### 4. Waste / Chemical Management (continued) **Description** Yes No N/A Remarks Storage of Chemical Waste $\boxtimes$ 4.9 a. Proper "Chemical Waste" signs are displayed? П $\boxtimes$ b. Incompatible wastes separated by an impermeable partition? $\boxtimes$ c. Containers kept in receptacle of suitable material and construction (if quantity <50L) or drip trays capable of storing 110% of the volume of largest (if quantity >50L)? $\boxtimes$ d. Enclosed on 3 sides with no less than 2m in height or height of tallest container or stack of containers? $\boxtimes$ e. Containers with chemical waste are properly stored and locked at designated area which is clean and dry? $\boxtimes$ f. Adequacy of area ventilation? $\boxtimes$ g. Outdoors storage area should be covered? 4.10 Chemical wastes are collected by a $\boxtimes$ licensed chemical waste collector? (retention of trip ticket copies for 12 months) Storage of Liquid Waste $\boxtimes$ 4.11 a. Storage area floor/surface permeationproof? П $\boxtimes$ b. Capacity of retention structure sufficient П to accommodate contents of the largest container or 20% volume of waste in storage? c. Walls or partitions of stacked container $\boxtimes$ storage area constructed of impermeable material?



#### 5. Other Issues **Description** No N/A Remarks Landfill Gas Hazard The lot is within the LFG $\boxtimes$ Consultation Zone and the Tenant (within LFG Consultation Zone) has alerted workers/visitors about 5.1 a. Workers and visitors alerted to possible possible LFG hazards. A notice is LGF hazards? also posted at the entrance. $\boxtimes$ П П b. Smoking and open fires prohibited? 5.2 Security lighting directed downward into the $\boxtimes$ work areas to prevent glare to the surrounding receivers? $\boxtimes$ 5.3 Good housekeeping? See Follow Action #1. $\boxtimes$ 5.4 Any areas within the lot to be used for Most of the areas are concreterecycling processes are concrete paved? paved. П $\boxtimes$ 5.5 Valid calibration certificate for any monitoring equipment? $\boxtimes$ There were no dangerous goods **Dangerous Goods** stored on site. 5.6 a. Valid license for manufacturing / storing dangerous goods? b. Storage area in compliance with the $\boxtimes$ approved plan? c. Storage area(s) has been securely $\boxtimes$ locked? П d. Total storage capacity in compliance with $\boxtimes$ the relevant statutory requirement? e. Proper Labelling? $\boxtimes$ f. Dangerous goods properly packaged? $\boxtimes$ $\boxtimes$ Potential stagnant pools cleared and See Action #2. mosquito breeding prevented?



# **Action Items from This Audit**

# No. Action Expected By

 Overflow was observed at the working area because of blockage of the wastewater treatment plant (WWTP) as advised by the Tenant. The Tenant should properly maintain the WWTP to avoid overflow. 15 Oct 2010



2 Stagnant water was found inside the manhole of the storm water drain. Odour was 15 Oct 2010 also noted which was considered to be arising from the stagnant water.



In addition, soil and rubbish were found inside the U-channel adjacent to the WWTP. The Tenant should clean up the U-Channel.







# **Follow-up from Previous Audits**

# No. Follow-up from Previous Audit Dated 30 August 2010

**Status** 

1. Refuse was observed on the bare ground within the waste storage area same as the previous audit. The Tenant was reminded to improve housekeeping.

Outstanding





# **Audit Summary and Sign-off**

The Tenant should improve the overall tidiness of the lot and regularly maintain the WWTP and drainage system.

	ET	IEC*	Tenant	Operator	
Organisation	SMEC Asia Ltd	Scott Wilson Ltd	Yan Oi Tong	Serco Guardian JV	
Signed By	Antony WONG	-	Victor WANG	Morgan CHIU	
Role	ET Leader	-	STO	Park Manager	
Signature	Thous		#	3	

Note: \* IEC to sign-off only for a joint ET+IEC Inspection



	Audit Details					
Ten	ant	Yan Oi Tong Limited				
Date	e & Time	Date 27 October 2010			Tin	ne 11:40am
Lot	No.	P7				
Aud	lit Ref.	3				
IEC	Joint Inspection		0			
Wea	ather Conditions	⊠ Fine □ H	azy			Overcast Rain
Win	d	☐ Calm ☐ Li	ght Bro	eeze	$\boxtimes$	Strong Wind
Ten	nperature	23 °C				
Hun	nidity		edium			High
	1. General					
	Description		Yes	No	N/A	Remarks
1.1	EP for Tenant disp at entrance?	played on notice boards /				EP for EcoPark (EP-226/2005/A) is displayed at the entrance of EcoPark. EP for tenant is not required.
1.2	Environmental Poli	icy documented?			$\boxtimes$	The Operator's Environmental Policy is documented.
1.3	Environmental Man	nagement Plan updated?				The Tenant's EMP is documented.
1.4	a. Emergency Res documented?	ponse Plan (ERP)				The Tenant's ERP is documented.
	b. Drill / training red	cords available?	$\boxtimes$			
1.5	Employee's training	g record available?				
1.6	Any record of pros	ecution / complaint?		$\boxtimes$		
1.7	Waste Managemen	nt Plan?				The Tenant has included the WMP into the EMP.



#### 2. Water Quality **Description** Yes No N/A Remarks Licence No. WT00006013-2010 valid 2.1 Valid Effluent Discharge License available? until 28 Feb 2015. 2.2 Any wastewater treatment facility prior to effluent discharge? If yes, facility is properly maintained and See Follow-Up Action#2 function normally? **Effluent Monitoring** $\boxtimes$ As per the discharge licence, selfmonitoring shall be performed when a. Sampling / Monitoring Record available? required. b. Monitoring frequency met the license $\boxtimes$ No sampling was undertaken. requirement? $\boxtimes$ c. Any exceedance? No sampling was undertaken. d. If yes, follow-up action taken? $\boxtimes$ No sampling was undertaken. Surface run-off control measures in place See Follow-up Action#3. 2.4 and adequately maintained? 2.5 Surface run-off discharging into drainage system? 2.6 All manholes are covered? 2.7 Foam, oil, grease, litter or other See Follow-up Action#3. objectionable matters in water of nearby drain / sewer are avoided? 2.8 Drainage system is well maintained to $\boxtimes$ See Follow-up Action #3. prevent flooding and overflow?



	Description	Yes	No	N/A	Remarks
	Processes with high Risk of Contamination				Works for recycling were undertaken at covered areas.
2.9	a. Processes / activities are located under a covered area?				
	b. Stop-logs installed in the perimeter drainage system for uncovered areas?			$\boxtimes$	Stop-logs are not required for the lots of Phase 2.
	c. Contaminated water collected in the surface drainage systems is treated at water treatment facility / other appropriate treatment facility?			$\boxtimes$	Water is unlikely to be contaminated within the lot.
2.10	Equipment oil and lubrication replacements are performed only in bunded maintenance area?				Only grease is used at the lot.
.11	a. Oil interceptor provided for drainage discharging from maintenance area?			$\boxtimes$	Not required.
	b. If yes, oil and grease removed regularly?			$\boxtimes$	
	c. Collected by licenced collector?			$\boxtimes$	
2.12	Cargo Handling  a. Cargo Handling Guideline available and followed to minimise chance of accidental spillage when loading or unloading?			$\boxtimes$	Not required.
,	b. Materials and bulk cargo are properly packed?			$\boxtimes$	



	3. Air Quality				
	Description	Yes	No	N/A	Remarks
3.1	a. Valid Specified Process License for all specified process available?				Not required
	b. SP License conditions / monitoring requirements met?			$\boxtimes$	Ditto
3.2	Odour  a. Any odour detected?	$\boxtimes$			See Follow-up Action#3.
	b. If yes, can the source be identified?	$\boxtimes$			See Follow-up Action#3.
	c. Odorous materials are covered?				
	d. If odour control system is installed, is it operating normally?				
3.3	All dusty materials are sprayed with water or covered by impervious sheeting prior to any loading, unloading or transfer operation?				No dusty materials were found to be used on-site
3.4	Dust Monitoring a. Monitoring Record available?				
	b. Monitoring frequency met the requirement?				
	c. Any exceedance?			$\boxtimes$	
	d. If yes, follow-up action taken?				
3.5	Enclosures are provided around the main dust-generating activities?			$\boxtimes$	
3.6	Open burning is avoided?				



#### 3. Air Quality (continued) **Description** Yes No N/A Remarks Dark smoke emitted from chimney or $\boxtimes$ There is no chimney installed on-3.7 powered plant is avoided? $\boxtimes$ П 3.8 Vehicles and equipment are switched off while not in use? $\boxtimes$ 3.9 Approval certificate issued by the Authority is available for furnace, oven or chimney consuming: a. >25L of conventional liquid fuel per hour $\boxtimes$ b. >35kg of conventional solid fuel per hour $\boxtimes$ c. >1,150 MJ of any gaseous fuel per hour 3.10 Approval from Authority is available for the $\boxtimes$ use of liquid fuel with a viscosity point of ignition >30 centistokes or an equivalent viscosity? 3.11 Dust collected by any air pollution control $\boxtimes$ equipment installed by tenants must be tested to ensure compliance for landfill disposal. 3.12 a. Approval from Authority for the use of $\boxtimes$ controlled refrigerant? b. If yes, record of refrigeration equipment $\boxtimes$ service available? П $\Box$ 3.13 All air pollution control systems are properly $\boxtimes$ maintained and function normally? 3.14 Only Ultra-Low Sulphur Diesel is used? $\boxtimes$



# 4. Waste / Chemical Management **Description** Yes No N/A Remarks **Chemical Waste Producer Registration** Registration No. 9211-421-Y2453-03. 4.1 completed? 4.2 Provision of sufficient waste disposal points/ receptacles? Waste disposed of regularly and properly? 4.3 $\boxtimes$ Twice a week. 4.4 Sorting of materials on-site for reuse or disposal to designated outlet? Record of quantities of waste generated, 4.5 recycled and disposed properly kept and easily retrieved for inspection? Sludge is collected by a licensed collector at $\boxtimes$ 4.6 regular intervals? Packaging of Chemical Waste $\boxtimes$ No chemical waste was produced. a. Stored in suitable container? 4.7 b. Container properly closed or sealed? $\boxtimes$ c. Spillage cleaned up immediately through $\boxtimes$ the use of an absorbent? ПП $\bowtie$ d. Approval obtained for capacity of containers > 450L? Labelling of Chemical Waste $\boxtimes$ a. Label is securely attached, clean and 4.8 visible? b. Label is in proper dimension and $\boxtimes$ bilingual? $\boxtimes$ c. Information is accurate and sufficient?



#### 4. Waste / Chemical Management (continued) **Description** Yes No N/A Remarks Storage of Chemical Waste $\boxtimes$ 4.9 a. Proper "Chemical Waste" signs are displayed? $\boxtimes$ b. Incompatible wastes separated by an impermeable partition? c. Containers kept in receptacle of suitable $\boxtimes$ material and construction (if quantity <50L) or drip trays capable of storing 110% of the volume of largest (if quantity >50L)? $\boxtimes$ d. Enclosed on 3 sides with no less than 2m in height or height of tallest container or stack of containers? $\boxtimes$ e. Containers with chemical waste are properly stored and locked at designated area which is clean and dry? П $\boxtimes$ f. Adequacy of area ventilation? $\boxtimes$ g. Outdoors storage area should be covered? 4.10 Chemical wastes are collected by a $\boxtimes$ licensed chemical waste collector? (retention of trip ticket copies for 12 months) Storage of Liquid Waste $\boxtimes$ 4.11 a. Storage area floor/surface permeationproof? ПП $\bowtie$ b. Capacity of retention structure sufficient to accommodate contents of the largest container or 20% volume of waste in storage? c. Walls or partitions of stacked container $\boxtimes$ storage area constructed of impermeable material?



#### 5. Other Issues **Description** Yes No N/A Remarks Landfill Gas Hazard The lot is within the LFG Consultation Zone and the Tenant has alerted (within LFG Consultation Zone) workers/visitors about possible LFG 5.1 a. Workers and visitors alerted to possible hazards. A notice is also posted at the LGF hazards? entrance. b. Smoking and open fires prohibited? 5.2 Security lighting directed downward into the work areas to prevent glare to the surrounding receivers? $\boxtimes$ 5.3 Good housekeeping? See Follow-up Action#1. Any areas within the lot to be used for Most of the areas used for recycling recycling processes are concrete paved? are concrete-paved. $\bowtie$ 5.5 Valid calibration certificate for any monitoring equipment? $\boxtimes$ There were no dangerous goods **Dangerous Goods** stored on site. 5.6 a. Valid license for manufacturing / storing dangerous goods? b. Storage area in compliance with the $\boxtimes$ approved plan? c. Storage area(s) has been securely $\boxtimes$ locked? d. Total storage capacity in compliance with $\boxtimes$ the relevant statutory requirement? e. Proper Labelling? $\boxtimes$ f. Dangerous goods properly packaged? Potential stagnant pools cleared and See Follow-up Action#3. mosquito breeding prevented?



#### **Action Items from This Audit**

No. Action Expected By

1. NIL. NIL.

#### **Follow-up from Previous Audits**

# No. Follow-up from Previous Audits Dated 30 August 2010 & 29 September 2010

**Status** 

Same as the previous audits, refuse was observed on the bare ground within the
waste storage area. The Tenant was again reminded to improve housekeeping. It
is suggested to concrete-pave the bare ground for the ease of housekeeping.

Outstanding



The wastewater treatment plant (WWTP) resumed normal operation, still overflow
at the wastewater collection system of the working area was observed. Screening
should be provided so as to avoid clogging.

Outstanding



3. Stagnant water and waste plastics were still found inside gully gratings of the site. Odour was again noted and considered to be arising from the stagnant water. It was suggested to install a screen such as silt curtain at the drain inlet to prevent unwanted materials entering the drains in order to prevent storm water pollution.

Outstanding





#### Follow-up from Previous Audits

In addition, soil and rubbish were still found inside the U-channel adjacent to the WWTP. The Tenant advised U-channels were cleaned after the last audit. The Tenant should regularly clean up U-channels. It is also suggested to provide covers to the U-channels.





# **Audit Summary and Sign-off**

The Tenant should improve the overall tidiness of the lot and maintain the drainage system regularly.

	ET	IEC*	Tenant	Operator
Organisation	SMEC Asia Ltd	Scott Wilson Ltd	Yan Oi Tong	Serco Guardian JV
Signed By	Antony WONG	KK Kwok	Martin HUI	Morgan CHIU
Role	ET Leader	IEC Representative	Plant Manager	Park Manager
Signature	Antony	OKtub	MEN	3

Note: \* IEC to sign-off only for a joint ET+IEC Inspection



# **APPENDIX 6.2**

Tenant-specific Audit Checklists for the Reporting Quarter

Shiu Wing (EP08-03)



	Audit Details						
Ten	nant	Shiu Wing Limited	b				
Aud	dit Month	August 2010					
Lot	No.	EP08-03		_			
Aud	dit Ref.	2		_			
Aud	dit Date	30 August 2010		Time	09:30	am	
IEC	Joint Inspection	Yes	$\boxtimes$	No			
We	ather Conditions	Fine	$\boxtimes$	Hazy		Ov	vercast Rain
Wir	nd	⊠ Calm		Light Bre	eze	Str	rong Wind
Ten	nperature	33_°C					
Hur	midity	Low	$\boxtimes$	Medium		☐ Hiệ	gh
	1. General						
	Description			Yes	No	N/A	Remarks
1.1	EP for Tenant disp at entrance?	olayed on notice boa	ırds	/			EP for EcoPark (EP-226/2005/A) displayed at the entrance of EcoPark. EP for tenant not required.
1.2	Environmental Pol	icy documented?			$\boxtimes$		The Tenant is going to integrate the Environmental Policy into their Safety Operations Manual soon.
1.3	Environmental Ma	nagement Plan upd	ated	?	$\boxtimes$		The Tenant is going to integrate the EMP into their Safety Operations Manual soon.
1.4	a. Emergency Res documented?	sponse Plan (ERP)		$\boxtimes$			The ERP has been included in the Tenant's Safety Operations Manual.
	b. Drill / training re	cords available?		$\boxtimes$			The Tenant advised the training records were kept at their HR department.
1.5	Employee's trainin	g record available?					The Tenant keeps a training record for BPI.
1.6	Any record of pros	ecution / complaint?	)				
1.7	Waste Manageme	nt Plan?				$\boxtimes$	Operator's WMP is documented.



# 2. Water Quality **Description** Yes No N/A **Remarks** Valid Effluent Discharge License available? $\boxtimes$ No wastewater generated from 2.1 the recycling process. $\boxtimes$ 2.2 Any wastewater treatment facility prior to effluent discharge? $\boxtimes$ If yes, facility is properly maintained and function normally? **Effluent Monitoring** $\boxtimes$ a. Sampling / Monitoring Record available? b. Monitoring frequency met the license $\boxtimes$ requirement? $\boxtimes$ c. Any exceedance? $\boxtimes$ d. If yes, follow-up action taken? $\boxtimes$ 2.4 Surface run-off control measures in place and adequately maintained? $\boxtimes$ 2.5 Surface run-off discharging into drainage system? 2.6 All manholes are covered? $\boxtimes$ $\boxtimes$ 2.7 Foam, oil, grease, litter or other objectionable matters in water of nearby drain / sewer are avoided? Drainage system is well maintained to $\boxtimes$ prevent flooding and overflow?



	Description	Yes	No	N/A	Remarks
.9	Processes with high Risk of Contamination  a. Processes / activities are located under a covered area?				The risk of contamination for the recycling process is low.
	covered area?				
	b. Stop-logs installed in the perimeter drainage system for uncovered areas?				The stop-logs are temporarily kept by the Operator and they will be passed to the Tenant shortly.
•	c. Contaminated water collected in the surface drainage systems is treated at water treatment facility / other appropriate treatment facility?				No contaminated water was found.
10	Equipment oil and lubrication replacements are performed only in bunded maintenance area?				No equipment oil and lubrication replacement were performed inside the tenant lot.
11	a. Oil interceptor provided for drainage discharging from maintenance area?				Not required.
•	b. If yes, oil and grease removed regularly?			$\boxtimes$	
	c. Collected by licenced collector?			$\boxtimes$	
	Cargo Handling			$\boxtimes$	Not required.
12	a. Cargo Handling Guideline available and followed to minimise chance of accidental spillage when loading or unloading?				
•	b. Materials and bulk cargo are properly packed?			$\boxtimes$	



	3. Air Quality				
	Description	Yes	No	N/A	Remarks
3.1	a. Valid Specified Process License for all specified process available?				Not required.
	b. SP License conditions / monitoring requirements met?				
3.2	Odour a. Any odour detected?		$\boxtimes$		
	b. If yes, can the source be identified?			$\boxtimes$	
	c. Odorous materials are covered?			$\boxtimes$	
	d. If odour control system is installed, is it operating normally?			$\boxtimes$	
3.3	All dusty materials are sprayed with water or covered by impervious sheeting prior to any loading, unloading or transfer operation?			$\boxtimes$	No dusty materials were found to be used on-site
3.4	Dust Monitoring a. Monitoring Record available?				
	b. Monitoring frequency met the requirement?				
	c. Any exceedance?			$\boxtimes$	
	d. If yes, follow-up action taken?			$\boxtimes$	
3.5	Enclosures are provided around the main dust-generating activities?			$\boxtimes$	
3.6	Open burning is avoided?	$\boxtimes$			



	3. Air Quality (continued)				
	Description	Yes	No	N/A	Remarks
3.7	Dark smoke emitted from chimney or powered plant is avoided?				
3.8	Vehicles and equipment are switched off while not in use?				
3.9	Approval certificate issued by the Authority is available for furnace, oven or chimney consuming:  a. >25L of conventional liquid fuel per hour				
-	b. >35kg of conventional solid fuel per hour			$\boxtimes$	
-	c. >1,150 MJ of any gaseous fuel per hour				
3.10	Approval from Authority is available for the use of liquid fuel with a viscosity point of ignition >30 centistokes or an equivalent viscosity?				
3.11	Dust collected by any air pollution control equipment installed by tenants must be tested to ensure compliance for landfill disposal.			$\boxtimes$	Misting system and industrial dust collector are not yet installed.
3.12	Approval from Authority for the use of controlled refrigerant?			$\boxtimes$	
-	b. If yes, record of refrigeration equipment service available?				
3.13	All air pollution control systems are properly maintained and function normally?				Not yet installed.
3.14	Only Ultra-Low Sulphur Diesel is used?				



#### 4. Waste / Chemical Management **Description Remarks** Yes No N/A Chemical Waste Producer Registration $\boxtimes$ EPD informed the Tenant that 4.1 completed? their application for registering as a chemical waste producer has been received. Provision of sufficient waste disposal points/ $\boxtimes$ 4.2 receptacles? Waste disposed of regularly and properly? $\boxtimes$ 4.3 The collection frequency depends on the quantity of waste generated. $\boxtimes$ Sorting of materials on-site for reuse or 4.4 disposal to designated outlet? 4.5 Record of quantities of waste generated, $\boxtimes$ recycled and disposed properly kept and easily retrieved for inspection? 4.6 Sludge is collected by a licensed collector at $\boxtimes$ regular intervals? Packaging of Chemical Waste П $\boxtimes$ See Actions #1 & 2. 4.7 a. Stored in suitable container? b. Container properly closed or sealed? П $\boxtimes$ See Actions #1 & 2. c. Spillage cleaned up immediately through $\boxtimes$ See Actions #1 & 2. the use of an absorbent? d. Approval obtained for capacity of $\boxtimes$ See Actions #1 & 2. containers > 450L? Labelling of Chemical Waste $\boxtimes$ See Actions #1 & 2. 4.8 a. Label is securely attached, clean and visible? b. Label is in proper dimension and $\Box$ $\boxtimes$ See Actions #1 & 2. bilingual? $\boxtimes$ See Actions #1 & 2. c. Information is accurate and sufficient?



#### 4. Waste / Chemical Management (continued) **Description** Yes No N/A Remarks $\Box$ $\boxtimes$ See Actions #1 & 2. Storage of Chemical Waste 4.9 a. Proper "Chemical Waste" signs are displayed? b. Incompatible wastes separated by an $\boxtimes$ See Actions #1 & 2. impermeable partition? $\boxtimes$ c. Containers kept in receptacle of suitable See Actions #1 & 2. material and construction (if quantity <50L) or drip trays capable of storing 110% of the volume of largest (if quantity >50L)? $\boxtimes$ d. Enclosed on 3 sides with no less than 2m See Actions #1 & 2. in height or height of tallest container or stack of containers? $\boxtimes$ e. Containers with chemical waste are See Actions #1 & 2. properly stored and locked at designated area which is clean and dry? f. Adequacy of area ventilation? $\Box$ $\boxtimes$ See Actions #1 & 2. g. Outdoors storage area should be $\boxtimes$ covered? $\boxtimes$ See Actions #1 & 2. 4.10 Chemical wastes are collected by a licensed chemical waste collector? (retention of trip ticket copies for 12 months) Storage of Liquid Waste $\Box$ П $\boxtimes$ See Actions #1 & 2. 4.11 a. Storage area floor/surface permeationproof? $\boxtimes$ b. Capacity of retention structure sufficient See Actions #1 & 2. to accommodate contents of the largest container or 20% volume of waste in storage? c. Walls or partitions of stacked container П $\boxtimes$ See Actions #1 & 2. storage area constructed of impermeable material?



#### 5. Other Issues **Description Remarks** Yes No N/A The lot is within the LFG Landfill Gas Hazard $\boxtimes$ $\boxtimes$ Consultation Zone and the Tenant (within LFG Consultation Zone) has alerted workers/visitors about a. Workers and visitors alerted to possible possible LFG hazards. A notice is LGF hazards? also posted at the entrance. $\boxtimes$ b. Smoking and open fires prohibited? $\boxtimes$ 5.2 Security lighting directed downward into the work areas to prevent glare to the surrounding receivers? $\boxtimes$ 5.3 Good housekeeping? 5.4 Any areas within the lot to be used for $\boxtimes$ Most of the areas are covered by metal plates. recycling processes are concrete paved? 5.5 Valid calibration certificate for any $\Box$ $\boxtimes$ monitoring equipment? П $\boxtimes$ There were no DGs stored on **Dangerous Goods** site. 5.6 a. Valid license for manufacturing / storing dangerous goods? b. Storage area in compliance with the П $\boxtimes$ approved plan? c. Storage area(s) has been securely $\boxtimes$ locked? d. Total storage capacity in compliance with $\boxtimes$ the relevant statutory requirement? $\boxtimes$ e. Proper Labelling? f. Dangerous goods properly packaged? $\Box$ $\bowtie$ Potential stagnant pools cleared and $\boxtimes$ mosquito breeding prevented?



#### **Action Items from This Audit**

#### No. Action

1.

The Tenant advised that chemical wastes would be transferred to the chemical waste store at the main Shui Wing plant near to EcoPark. In accordance with Section 21 of the Waste Disposal (Chemical Waste) (General) Regulation, chemical waste should only be removed or transported by an authorized collector from the site or premises. A fine of HK\$200,000 and imprisonment for 6 months could be caused for any illegal chemical waste collection under the Regulation.

**Expected By** 

Next Audit

As such, the chemical wastes generated should only be collected by an authorized collector and a chemical waste store with proper design should be provided on-site.

 Suspected Asbestos Containing Material (ACM) was identified on site – it appeared to be a brake shoe, part of a breaking mechanism on a crane. In accordance with Section 21 of the Waste Disposal (Chemical Waste) (General) Regulation, improper collection of ACM, which is a chemical waste, will incur a fine of HK\$200,000 and imprisonment for 6 months. 17 Sep 2010

In order to avoid any breach of the regulation, the Tenant should sort such kind of materials out from the materials and engage a registered asbestos laboratory for testing the material. If the material is found to be an ACM, such material must be handled by a registered asbestos contractor. The Tenant should also ensure no suspected ACM will be received in the future.





# Follow-up from Previous Audits

#### No. Follow-up from Previous Audit Dated 26 July 2010

Status

1. No continuous oil spillage from the collected machines was found. Since the ground has been paved, the impact to soil due to the oil is considered to be minimal.

Completed



2. The oil drums were found to be covered.

Completed





# **Audit Summary and Sign-off**

The site is generally tidy and some actions were recommended to the Tenant.

	ET	IEC*	Tenant	Operator
Organisation	SMEC Asia Ltd	Scott Wilson Ltd	Shiu Wing	Serco Guardian JV
Signed By	Antony WONG		Alex WAI	Morgan CHIU
Role	ET Leader	-	Manager	Park Manager
Signature	Antmy		X6.	13

Note: \*IEC to sign-off only for a joint ET+IEC Inspection



	Audit Details					
Ten	ant	Shiu Wing Limite	ed			
Dat	e & Time	Date 29 Septer	nber	2010	Time	09:30am
Lot	No.	EP08-03				
Aud	lit Ref.	2		_		
IEC	Joint Inspection	Yes	$\boxtimes$	No		
We	ather Conditions			Hazy	□ O\	vercast Rain
Wir	nd	Calm	$\boxtimes$	Light Breeze	Sti	rong Wind
Ten	nperature	31 °C				
Hur	midity	⊠ Low		Medium	☐ Hig	gh
	1. General					
	Description			Yes No	N/A	Remarks
.1	EP for Tenant disp at entrance?	layed on notice boa	ards	<i>'</i>		EP for EcoPark (EP-226/2005/A) is displayed at the entrance of EcoPark. EP for tenant is not required.
2	Environmental Poli	icy documented?				The Tenant is going to integrate the Environmental Policy into their Safety Operations Manual soon.
3	Environmental Mar	nagement Plan upo	lated	? 🗌 🛛		The Tenant is going to integrate the EMP into their Safety Operations Manual soon.
4	a. Emergency Res documented?	ponse Plan (ERP)				The ERP has been included in the Tenant's Safety Operations Manual.
	b. Drill / training red	cords available?				The Tenant advised the training records were kept at their HR department.
5	Employee's training	g record available?				The Tenant keeps a training record for BPI.
6	Any record of prose	ecution / complaint	?			
.7	Waste Managemen	nt Plan?			$\square$	Operator's WMP is documented.



	2. Water Quality				
	Description	Yes	No	N/A	Remarks
2.1	Valid Effluent Discharge License available?				No wastewater is generated from the recycling process.
2.2	Any wastewater treatment facility prior to effluent discharge?			$\boxtimes$	
	If yes, facility is properly maintained and function normally?			$\boxtimes$	
2.3	Effluent Monitoring a. Sampling / Monitoring Record available?			$\boxtimes$	
	b. Monitoring frequency met the license requirement?			$\boxtimes$	
	c. Any exceedance?			$\boxtimes$	
	d. If yes, follow-up action taken?			$\boxtimes$	
2.4	Surface run-off control measures in place and adequately maintained?			$\boxtimes$	
2.5	Surface run-off discharging into drainage system?	$\boxtimes$			
2.6	All manholes are covered?	$\boxtimes$			
2.7	Foam, oil, grease, litter or other objectionable matters in water of nearby drain / sewer are avoided?	$\boxtimes$			
2.8	Drainage system is well maintained to prevent flooding and overflow?	$\boxtimes$			
					,



	Description	Yes	No	N/A	Remarks
2.9	Processes with high Risk of Contamination  a. Processes / activities are located under a				The risk of contamination for the recycling process is low.
	covered area?				
	b. Stop-logs installed in the perimeter drainage system for uncovered areas?				The stop-logs have been passed to Tenant, who shall install in the perimeter drainage channel as and when necessary.
	c. Contaminated water collected in the surface drainage systems is treated at water treatment facility / other appropriate treatment facility?				No contaminated water was found.
.10	Equipment oil and lubrication replacements are performed only in bunded maintenance area?			$\boxtimes$	No equipment oil and lubrication replacement were performed inside the tenant lot.
.11	a. Oil interceptor provided for drainage discharging from maintenance area?				Not required.
	b. If yes, oil and grease removed regularly?			$\boxtimes$	
	c. Collected by licenced collector?				
.12	Cargo Handling  a. Cargo Handling Guideline available and followed to minimise chance of accidental spillage when loading or unloading?			$\boxtimes$	Not required.
	b. Materials and bulk cargo are properly packed?			$\boxtimes$	



	3. Air Quality				
	Description	Yes	No	N/A	Remarks
3.1	a. Valid Specified Process License for all specified process available?				Not required.
	b. SP License conditions / monitoring requirements met?			$\boxtimes$	
3.2	Odour a. Any odour detected?		$\boxtimes$		
	b. If yes, can the source be identified?				
	c. Odorous materials are covered?			$\boxtimes$	
	d. If odour control system is installed, is it operating normally?			$\boxtimes$	
3.3	All dusty materials are sprayed with water or covered by impervious sheeting prior to any loading, unloading or transfer operation?			$\boxtimes$	No dusty materials were found to be used on-site
3.4	Dust Monitoring a. Monitoring Record available?			$\boxtimes$	
	b. Monitoring frequency met the requirement?			$\boxtimes$	
	c. Any exceedance?			$\boxtimes$	
	d. If yes, follow-up action taken?			$\boxtimes$	
3.5	Enclosures are provided around the main dust-generating activities?			$\boxtimes$	
3.6	Open burning is avoided?				



	3. Air Quality (continued)				
	Description	Yes	No	N/A	Remarks
3.7	Dark smoke emitted from chimney or powered plant is avoided?				
3.8	Vehicles and equipment are switched off while not in use?	$\boxtimes$			
3.9	Approval certificate issued by the Authority is available for furnace, oven or chimney consuming:  a. >25L of conventional liquid fuel per hour			$\boxtimes$	
•	b. >35kg of conventional solid fuel per hour			$\boxtimes$	
-	c. >1,150 MJ of any gaseous fuel per hour				
3.10	Approval from Authority is available for the use of liquid fuel with a viscosity point of ignition >30 centistokes or an equivalent viscosity?			$\boxtimes$	
3.11	Dust collected by any air pollution control equipment installed by tenants must be tested to ensure compliance for landfill disposal.			$\boxtimes$	Misting system and industrial dust collector are not yet installed.
3.12	Approval from Authority for the use of controlled refrigerant?			$\boxtimes$	
	b. If yes, record of refrigeration equipment service available?				
3.13	All air pollution control systems are properly maintained and function normally?				Not yet installed.
3.14	Only Ultra-Low Sulphur Diesel is used?				



#### 4. Waste / Chemical Management **Description** Yes No N/A **Remarks** Chemical Waste Producer Registration See Action #1. 4.1 $\boxtimes$ completed? 4.2 Provision of sufficient waste disposal points/ $\boxtimes$ receptacles? $\boxtimes$ 4.3 Waste disposed of regularly and properly? The collection frequency depends on the quantity of waste generated. $\boxtimes$ 4.4 Sorting of materials on-site for reuse or disposal to designated outlet? $\boxtimes$ 4.5 Record of quantities of waste generated, recycled and disposed properly kept and easily retrieved for inspection? $\boxtimes$ 4.6 Sludge is collected by a licensed collector at regular intervals? Packaging of Chemical Waste $\boxtimes$ See Follow Action # 2. a. Stored in suitable container? 4.7 b. Container properly closed or sealed? $\Box$ $\boxtimes$ See Follow Action # 2. c. Spillage cleaned up immediately through $\Box$ $\boxtimes$ the use of an absorbent? d. Approval obtained for capacity of $\boxtimes$ containers > 450L? Labelling of Chemical Waste $\boxtimes$ See Follow Action # 2. a. Label is securely attached, clean and 4.8 visible? $\boxtimes$ b. Label is in proper dimension and $\Box$ See Follow Action # 2. bilingual? $\boxtimes$ c. Information is accurate and sufficient? See Follow Action # 2.



#### 4. Waste / Chemical Management (continued) **Description** Yes No N/A **Remarks** Storage of Chemical Waste See Actions #1 & 2. $\boxtimes$ 4.9 a. Proper "Chemical Waste" signs are displayed? b. Incompatible wastes separated by an $\boxtimes$ See Actions #1 & 2. impermeable partition? $\boxtimes$ c. Containers kept in receptacle of suitable See Actions #1 & 2. material and construction (if quantity <50L) or drip trays capable of storing 110% of the volume of largest (if quantity >50L)? $\boxtimes$ d. Enclosed on 3 sides with no less than 2m See Actions #1 & 2. in height or height of tallest container or stack of containers? $\boxtimes$ e. Containers with chemical waste are $\Box$ See Actions #1 & 2. properly stored and locked at designated area which is clean and dry? $\boxtimes$ f. Adequacy of area ventilation? See Actions #1 & 2. $\boxtimes$ g. Outdoors storage area should be covered? 4.10 Chemical wastes are collected by a $\boxtimes$ licensed chemical waste collector? (retention of trip ticket copies for 12 months) Storage of Liquid Waste $\boxtimes$ $\Box$ 4.11 a. Storage area floor/surface permeationproof? b. Capacity of retention structure sufficient $\boxtimes$ $\Box$ to accommodate contents of the largest container or 20% volume of waste in storage? c. Walls or partitions of stacked container $\boxtimes$ storage area constructed of impermeable material?



#### 5. Other Issues **Description** No N/A Remarks Landfill Gas Hazard The lot is within the LFG $\boxtimes$ Consultation Zone and the Tenant (within LFG Consultation Zone) has alerted workers/visitors about 5.1 a. Workers and visitors alerted to possible possible LFG hazards. A notice is LGF hazards? also posted at the entrance. $\boxtimes$ b. Smoking and open fires prohibited? $\boxtimes$ 5.2 Security lighting directed downward into the work areas to prevent glare to the surrounding receivers? $\boxtimes$ 5.3 Good housekeeping? $\boxtimes$ 5.4 Any areas within the lot to be used for Most of the areas are covered by recycling processes are concrete paved? metal plates. $\boxtimes$ 5.5 Valid calibration certificate for any monitoring equipment? $\boxtimes$ Diesel storage was 400L which is **Dangerous Goods** within the exempted quantity of 5.6 a. Valid license for manufacturing / storing 2,500L. dangerous goods? b. Storage area in compliance with the $\boxtimes$ approved plan? c. Storage area(s) has been securely П $\boxtimes$ locked? d. Total storage capacity in compliance with $\boxtimes$ the relevant statutory requirement? e. Proper Labelling? $\boxtimes$ f. Dangerous goods properly packaged? П $\boxtimes$ Potential stagnant pools cleared and $\boxtimes$ mosquito breeding prevented?



#### **Action Items from This Audit**

No. Action Expected By

1. No new action item for this audit.

NIL

#### **Follow-up from Previous Audits**

#### No. Follow-up from Previous Audit Dated 30 August 2010

**Status** 

 The Tenant advised chemical waste would be collected by authorised chemical collector and a copy of the chemical waste registry would be provided for review in the next audit. Next audit

The suspected asbestos containing materials (ACM) were separately stored. The
Tenant was reminded to engage a registered asbestos laboratory for testing the
material. Further actions will be advised subject to the testing results.

Expected to be completed by 15 Oct 2010

# **Audit Summary and Sign-off**

The site is generally tidy and the Tenant should engage a registered laboratory to test for the suspected asbestos containing material.

	ET	IEC*	Tenant	Operator
Organisation	SMEC Asia Ltd	Scott Wilson Ltd	Shiu Wing	Serco Guardian JV
Signed By	Antony WONG	-	Alex WAI	Morgan CHIU
Role	ET Leader	-	Manager	Park Manager
Signature	Antony		iXi	13.

Note: \* IEC to sign-off only for a joint ET+IEC Inspection



	Audit Details						
Ten	ant	Shiu Wing Steel	Limit	ted			
Date & Time		Date 27 October	10	Tii		Fime 10:00am	
Lot	No.	EP08-03					
Auc	dit Ref.	3		_			
IEC	Joint Inspection			No			
Wea	ather Conditions	Fine		Hazy			Overcast Rain
Win	nd	Calm		Light Bre	eeze	$\boxtimes$	Strong Wind
Ten	nperature	21 °C					
Hur	midity	<b>⊠</b> Low		Medium			High
	1. General						
	Description			Yes	No	N/A	Remarks
1.1	EP for Tenant disp at entrance?	olayed on notice boa	ards	/			EP for EcoPark (EP-226/2005/A) is displayed at the entrance of EcoPark. EP for tenant is not required.
1.2	Environmental Poli	icy documented?			$\boxtimes$		The Tenant is going to integrate the Environmental Policy into their Safety Operations Manual soon.
1.3	Environmental Mar	nagement Plan upd	lated	?	$\boxtimes$		The Tenant is going to integrate the EMP into their Safety Operations Manual soon.
1.4	a. Emergency Res documented?	sponse Plan (ERP)		$\boxtimes$			The ERP has been included in the Tenant's Safety Operations Manual.
	b. Drill / training rea	cords available?		$\boxtimes$			The Tenant advised the training records were kept at their HR department.
1.5	Employee's training	g record available?	1				The Tenant keeps a training record for BPI.
1.6	Any record of pros	ecution / complaint	?		$\boxtimes$		
1.7	Waste Managemen	nt Plan?				$\boxtimes$	Operator's WMP is documented.



	2. Water Quality				
	Description	Yes	No	N/A	Remarks
2.1	Valid Effluent Discharge License available?				No wastewater is generated from the recycling process.
2.2	Any wastewater treatment facility prior to effluent discharge?				
	If yes, facility is properly maintained and function normally?			$\boxtimes$	
2.3	Effluent Monitoring a. Sampling / Monitoring Record available?			$\boxtimes$	
	b. Monitoring frequency met the license requirement?				
	c. Any exceedance?				
	d. If yes, follow-up action taken?				
2.4	Surface run-off control measures in place and adequately maintained?				
2.5	Surface run-off discharging into drainage system?				
2.6	All manholes are covered?	$\boxtimes$			
2.7	Foam, oil, grease, litter or other objectionable matters in water of nearby drain / sewer are avoided?				
2.8	Drainage system is well maintained to prevent flooding and overflow?				



	Description	Yes	No	N/A	Remarks
	Processes with high Risk of Contamination				The risk of contamination for the recycling process is low.
9	a. Processes / activities are located under a covered area?				
	b. Stop-logs installed in the perimeter drainage system for uncovered areas?				The stop-logs have been passed to Tenant, who shall install in the perimeter drainage channel as and when necessary.
	c. Contaminated water collected in the surface drainage systems is treated at water treatment facility / other appropriate treatment facility?				No contaminated water was found.
10	Equipment oil and lubrication replacements are performed only in bunded maintenance area?				No equipment oil and lubrication replacement were performed inside the tenant lot.
.11	a. Oil interceptor provided for drainage discharging from maintenance area?				Not required.
	b. If yes, oil and grease removed regularly?				
	c. Collected by licenced collector?				
.12	Cargo Handling  a. Cargo Handling Guideline available and followed to minimise chance of accidental spillage when loading or unloading?				Not required.
	b. Materials and bulk cargo are properly packed?			$\boxtimes$	



	3. Air Quality				
	Description	Yes	No	N/A	Remarks
3.1	a. Valid Specified Process License for all specified process available?				Not required.
	b. SP License conditions / monitoring requirements met?			$\boxtimes$	
	Odour		$\boxtimes$		
3.2	a. Any odour detected?				
	b. If yes, can the source be identified?			$\boxtimes$	
	c. Odorous materials are covered?			$\boxtimes$	
	d. If odour control system is installed, is it operating normally?				
3.3	All dusty materials are sprayed with water or covered by impervious sheeting prior to any loading, unloading or transfer operation?				No dusty materials were found to be used on-site.
3.4	Dust Monitoring a. Monitoring Record available?			$\boxtimes$	
	b. Monitoring frequency met the requirement?				
	c. Any exceedance?			$\boxtimes$	
	d. If yes, follow-up action taken?				
3.5	Enclosures are provided around the main dust-generating activities?				
3.6	Open burning is avoided?	$\boxtimes$			,



	3. Air Quality (continued)				
	Description	Yes	No	N/A	Remarks
3.7	Dark smoke emitted from chimney or powered plant is avoided?				
3.8	Vehicles and equipment are switched off while not in use?	$\boxtimes$			
3.9	Approval certificate issued by the Authority is available for furnace, oven or chimney consuming:  a. >25L of conventional liquid fuel per hour			$\boxtimes$	
•	b. >35kg of conventional solid fuel per hour			$\boxtimes$	
-	c. >1,150 MJ of any gaseous fuel per hour				
3.10	Approval from Authority is available for the use of liquid fuel with a viscosity point of ignition >30 centistokes or an equivalent viscosity?			$\boxtimes$	
3.11	Dust collected by any air pollution control equipment installed by tenants must be tested to ensure compliance for landfill disposal.				Misting system and industrial dust collector are not yet installed.
3.12	Approval from Authority for the use of controlled refrigerant?				
-	b. If yes, record of refrigeration equipment service available?			$\boxtimes$	
3.13	All air pollution control systems are properly maintained and function normally?			$\boxtimes$	Not yet installed.
3.14	Only Ultra-Low Sulphur Diesel is used?				



## 4. Waste / Chemical Management **Description** Yes No N/A Remarks **Chemical Waste Producer Registration** 4.1 See Follow-up Action #1. completed? 4.2 Provision of sufficient waste disposal points/ $\square$ $\square$ receptacles? Waste disposed of regularly and properly? The collection frequency depends on the quantity of waste generated. 4.4 Sorting of materials on-site for reuse or disposal to designated outlet? 4.5 Record of quantities of waste generated, recycled and disposed properly kept and easily retrieved for inspection? $\boxtimes$ 4.6 Sludge is collected by a licensed collector at regular intervals? Packaging of Chemical Waste $\boxtimes$ See Follow-up Action #2. 4.7 a. Stored in suitable container? b. Container properly closed or sealed? ☐ ☐ ☐ See Follow-up Action #2. c. Spillage cleaned up immediately through $\sqcap$ $\sqcap$ $\boxtimes$ the use of an absorbent? d. Approval obtained for capacity of $\sqcap$ $\sqcap$ $\boxtimes$ containers > 450L? Labelling of Chemical Waste $\boxtimes$ See Follow-up Action #2. a. Label is securely attached, clean and 4.8 visible? b. Label is in proper dimension and See Follow-up Action #2. bilingual? c. Information is accurate and sufficient? $\boxtimes$ See Follow-up Action #2.



### 4. Waste / Chemical Management (continued) **Description** Yes No N/A Remarks Storage of Chemical Waste See Follow-up Actions #1 & 2. 4.9 a. Proper "Chemical Waste" signs are displayed? b. Incompatible wastes separated by an See Follow-up Actions #1 & 2. impermeable partition? c. Containers kept in receptacle of suitable See Follow-up Actions #1 & 2. material and construction (if quantity <50L) or drip trays capable of storing 110% of the volume of largest (if quantity >50L)? d. Enclosed on 3 sides with no less than 2m $\bowtie$ See Follow-up Actions #1 & 2. in height or height of tallest container or stack of containers? e. Containers with chemical waste are $\boxtimes$ See Follow-up Actions #1 & 2. properly stored and locked at designated area which is clean and dry? f. Adequacy of area ventilation? See Follow-up Actions #1 & 2. $\boxtimes$ g. Outdoors storage area should be covered? 4.10 Chemical wastes are collected by a licensed chemical waste collector? (retention of trip ticket copies for 12 months) Storage of Liquid Waste 4.11 a. Storage area floor/surface permeationproof? b. Capacity of retention structure sufficient $\square$ $\square$ to accommodate contents of the largest container or 20% volume of waste in storage? c. Walls or partitions of stacked container storage area constructed of impermeable material?



`	5. Other Issues				
	Description	Yes	No	N/A	Remarks
5.1	Landfill Gas Hazard (within LFG Consultation Zone)  a. Workers and visitors alerted to possible				The lot is within the LFG Consultation Zone and the Tenant has alerted workers/visitors about possible LFG hazards. A notice is also posted at the
	LGF hazards?  b. Smoking and open fires prohibited?		$\overline{}$		entrance.
	b. Officially and open mod promotion.				
5.2	Security lighting directed downward into the work areas to prevent glare to the surrounding receivers?				
5.3	Good housekeeping?				
5.4	Any areas within the lot to be used for recycling processes are concrete paved?				Most of the areas are covered by metal plates.
5.5	Valid calibration certificate for any monitoring equipment?				
5.6	Dangerous Goods  a. Valid license for manufacturing / storing dangerous goods?				Diesel storage was 400L which is within the exempted quantity of 2,500L.
	b. Storage area in compliance with the approved plan?				
	c. Storage area(s) has been securely locked?				
	d. Total storage capacity in compliance with the relevant statutory requirement?				
	e. Proper Labelling?				
	f. Dangerous goods properly packaged?				
5.7	Potential stagnant pools cleared and mosquito breeding prevented?				



#### **Action Items from This Audit**

No. Action Expected By

No new action item for this audit.

NIL

### Follow-up from Previous Audits

### No. Follow-up from Previous Audit Dated 30 August 2010

Status

According to the Tenant, the chemical waste registry has already been obtained. A
copy will be provided to the Operator for record.

Expected to be provided by 1 Nov 2010

 The Tenant has engaged a registered asbestos laboratory for testing the suspected asbestos containing materials (ACM), but the testing results are not yet received. Further actions will be advised subject to the testing results.

Expected to be completed by 15 Nov 2010

### **Audit Summary and Sign-off**

The site is generally tidy. The Tenant should provide the chemical waste registry and the testing results of the suspected asbestos containing materials as soon as they are ready.

	ET	IEC*	Tenant	Operator
Organisation	SMEC Asia Ltd	Scott Wilson Ltd	Shiu Wing	Serco Guardian JV
Signed By	Antony WONG	KK KWOK	Alex WAI	Morgan CHIU
Role	ET Leader	IEC Representative	Managen	Park Manager
Signature	Throng	CCOnle	Ku	3

Note: \* IEC to sign-off only for a joint ET+IEC Inspection



# **APPENDIX 6.3**

Tenant-specific Audit Checklists for the Reporting Quarter

Champway (EP07-03)



#### **Audit Details Tenant** Champway Technology Limited **Audit Month** August 2010 Lot No. EP07-03 Audit Ref. 10 **Audit Date** 30 August 2010 Time 10:30am **IEC Joint Inspection** Yes No **Weather Conditions** Fine Overcast Rain Wind Light Breeze Strong Wind **Temperature** 33 °C **Humidity** Low High 1. General **Description** Yes No N/A **Remarks** EP for Tenant displayed on notice boards / EP for EcoPark (EP-226/2005/A) 1.1 $\boxtimes$ at entrance? displayed at the entrance of EcoPark. EP for tenant not required. Environmental Policy documented? $\boxtimes$ Operator's Environmental Policy 1.2 is documented. Tenant follows this. Environmental Management Plan updated? $\Box$ $\boxtimes$ 1.3 a. Emergency Response Plan (ERP) X Operator's ERP is documented. 1.4 Tenant follows this. documented? b. Drill / training records available? $\boxtimes$ Tenant does not keep records for ERP training. Employee's training record available? $\boxtimes$ Tenant keeps a training record 1.5 for BPI. $\boxtimes$ 1.6 Any record of prosecution / complaint? 1.7 Waste Management Plan? $\boxtimes$ Operator's WMP is documented. Tenant follows this.



	2. Water Quality				
	Description	Yes	No	N/A	Remarks
2.1	Valid Effluent Discharge License available?				Licence No.: WT00004430-2009.
2.2	Any wastewater treatment facility prior to effluent discharge?	$\boxtimes$			Oil interceptor & grease trap.
	If yes, facility is properly maintained and function normally?	$\boxtimes$			
2.3	Effluent Monitoring a. Sampling / Monitoring Record available?		$\boxtimes$		As per the discharge licence, self-monitoring shall be performed when required.
	b. Monitoring frequency met the license requirement?				No sampling was undertaken.
	c. Any exceedance?				No sampling was undertaken.
	d. If yes, follow-up action taken?			$\boxtimes$	No sampling was undertaken.
2.4	Surface run-off control measures in place and adequately maintained?	$\boxtimes$			
2.5	Surface run-off discharging into drainage system?				
2.6	All manholes are covered?	$\boxtimes$			
2.7	Foam, oil, grease, litter or other objectionable matters in water of nearby drain / sewer are avoided?	$\boxtimes$			
2.8	Drainage system is well maintained to prevent flooding and overflow?				



	Description	Yes	No	N/A	Remarks
	Processes with high Risk of Contamination	$\boxtimes$			
9	a. Processes / activities are located under a covered area?				
•	b. Stop-logs installed in the perimeter drainage system for uncovered areas?				The stop-logs have been passed to Tenant, who shall install in the perimeter drainage channel as and when necessary.
-	c. Contaminated water collected in the surface drainage systems is treated at water treatment facility / other appropriate treatment facility?			$\boxtimes$	No contaminated water.
10	Equipment oil and lubrication replacements are performed only in bunded maintenance area?				Oil replacement (of the heat (oil transmission system) carried ou off-site when needed. This may be necessary only once every ten years or maybe not at all.
11	a. Oil interceptor provided for drainage discharging from maintenance area?				
-	b. If yes, oil and grease removed regularly?				
-	c. Collected by licenced collector?	$\boxtimes$			
12	Cargo Handling  a. Cargo Handling Guideline available and followed to minimise chance of accidental spillage when loading or unloading?				
•	b. Materials and bulk cargo are properly packed?			$\boxtimes$	



#### 3. Air Quality **Description** Yes No N/A **Remarks** a. Valid Specified Process License for all $\boxtimes$ SP No. L-25-017 (1). 3.1 specified process available? $\boxtimes$ b. SP License conditions / monitoring requirements met? $\boxtimes$ **Odour** 3.2 a. Any odour detected? $\boxtimes$ b. If yes, can the source be identified? From the storage of grease trap waste. c. Odorous materials are covered? $\boxtimes$ d. If odour control system is installed, is it $\boxtimes$ $\Box$ operating normally? 3.3 All dusty materials are sprayed with water $\boxtimes$ No dusty materials were found to or covered by impervious sheeting prior to be used on-site. any loading, unloading or transfer operation? **Dust Monitoring** $\boxtimes$ Dust monitoring not required according to PRC. 3.4 a. Monitoring Record available? $\boxtimes$ b. Monitoring frequency met the requirement? c. Any exceedance? $\boxtimes$ d. If yes, follow-up action taken? $\boxtimes$ 3.5 Enclosures are provided around the main $\boxtimes$ dust-generating activities? Open burning is avoided? $\boxtimes$



	3. Air Quality (continued)				
	Description	Yes	No	N/A	Remarks
3.7	Dark smoke emitted from chimney or powered plant is avoided?				
3.8	Vehicles and equipment are switched off while not in use?				
3.9	Approval certificate issued by the Authority is available for furnace, oven or chimney consuming:  a. >25L of conventional liquid fuel per hour				
_	b. >35kg of conventional solid fuel per hour			$\boxtimes$	
_	c. >1,150 MJ of any gaseous fuel per hour			$\boxtimes$	
3.10	Approval from Authority is available for the use of liquid fuel with a viscosity point of ignition >30 centistokes or an equivalent viscosity?				
3.11	Dust collected by any air pollution control equipment installed by tenants must be tested to ensure compliance for landfill disposal.				
3.12	Approval from Authority for the use of controlled refrigerant?				
-	b. If yes, record of refrigeration equipment service available?			$\boxtimes$	
3.13	All air pollution control systems are properly maintained and function normally?				
3.14	Only Ultra-Low Sulphur Diesel is used?				Used by all diesel vehicles, fork- lift truck and emergency generator.



#### 4. Waste / Chemical Management **Description Remarks** Yes No N/A **Chemical Waste Producer Registration** $\boxtimes$ Registration No. 6311-421-4.1 completed? C3617-01 for spent lubricating oil and spent mineral oil. Provision of sufficient waste disposal points/ $\boxtimes$ 4.2 receptacles? Waste disposed of regularly and properly? $\boxtimes$ 2-3 times a week. 4.3 $\boxtimes$ Sorting of materials on-site for reuse or 4.4 disposal to designated outlet? 4.5 Record of quantities of waste generated, $\boxtimes$ recycled and disposed properly kept and easily retrieved for inspection? 4.6 Sludge is collected by a licensed collector at $\boxtimes$ $\Box$ regular intervals? $\boxtimes$ Packaging of Chemical Waste 4.7 a. Stored in suitable container? b. Container properly closed or sealed? $\boxtimes$ c. Spillage cleaned up immediately through $\boxtimes$ No spillage. the use of an absorbent? d. Approval obtained for capacity of $\boxtimes$ containers > 450L? Labelling of Chemical Waste $\boxtimes$ See Action #1. 4.8 a. Label is securely attached, clean and visible? b. Label is in proper dimension and $\Box$ $\boxtimes$ See Action #1. bilingual? $\boxtimes$ See Action #1. c. Information is accurate and sufficient?



#### 4. Waste / Chemical Management (continued) **Description** Yes No N/A Remarks $\boxtimes$ See Action #1. Storage of Chemical Waste 4.9 a. Proper "Chemical Waste" signs are displayed? b. Incompatible wastes separated by an $\boxtimes$ See Action #1. impermeable partition? $\boxtimes$ c. Containers kept in receptacle of suitable See Action #1. material and construction (if quantity <50L) or drip trays capable of storing 110% of the volume of largest (if quantity >50L)? $\boxtimes$ See Action #1. d. Enclosed on 3 sides with no less than 2m in height or height of tallest container or stack of containers? $\boxtimes$ e. Containers with chemical waste are See Action #1. properly stored and locked at designated area which is clean and dry? $\boxtimes$ f. Adequacy of area ventilation? See Action #1. g. Outdoors storage area should be $\boxtimes$ covered? $\boxtimes$ No collection. 4.10 Chemical wastes are collected by a licensed chemical waste collector? (retention of trip ticket copies for 12 months) Storage of Liquid Waste $\Box$ $\Box$ $\boxtimes$ No bulk storage. 4.11 a. Storage area floor/surface permeationproof? $\boxtimes$ b. Capacity of retention structure sufficient No bulk storage. to accommodate contents of the largest container or 20% volume of waste in storage? c. Walls or partitions of stacked container $\Box$ $\boxtimes$ No bulk storage. storage area constructed of impermeable material?



#### 5. Other Issues **Description** Remarks Yes No N/A Landfill Gas Hazard $\boxtimes$ Outside the LFG Consultation (within LFG Consultation Zone) Zone. a. Workers and visitors alerted to possible LGF hazards? $\boxtimes$ b. Smoking and open fires prohibited? $\boxtimes$ 5.2 Security lighting directed downward into the work areas to prevent glare to the surrounding receivers? $\boxtimes$ 5.3 Good housekeeping? See Follow-up #1 and #2. Any areas within the lot to be used for $\boxtimes$ recycling processes are concrete paved? 5.5 Valid calibration certificate for any $\boxtimes$ No monitoring equipment. monitoring equipment? DG licences for storing sulphuric acid, $\boxtimes$ П **Dangerous Goods** methanol and fatty acid methyl esters (FAME) obtained (Nos. 021229, 021228 & 021227, and 021225 & 021226). DG licence for manufacturing FAME obtained (No. 001456). 5.6 a. Valid license for manufacturing / storing dangerous goods? b. Storage area in compliance with the $\boxtimes$ approved plan? $\boxtimes$ c. Storage area(s) has been securely locked? d. Total storage capacity in compliance with $\boxtimes$ the relevant statutory requirement? $\boxtimes$ e. Proper Labelling? f. Dangerous goods properly packaged? $\boxtimes$ Potential stagnant pools cleared and $\boxtimes$ mosquito breeding prevented?



### **Action Items from This Audit**

### No. Action

**Expected By** 

A drum was found to be placed on a bare ground outside the laboratory. The
Tenant advised the spent solvent generated from the laboratory was stored in the
drum which will be recovered later.

17 Sep 2010

The Tenant should properly store and labelled the spent solvent, put the container at a safe area instead of a bare ground outside the laboratory.



2. The tenant was recommended to provide a bigger drip tray or to hang the rubber tube of the oil filling station above the drip tray to avoid oil dripping on the ground.

17 Sep 2010





### **Follow-up from Previous Audits**

### No. Follow-up from Previous Audit Dated 26 July 2010

**Status** 

1. Significant oil stain was not observed.

Completed



2. No significant oil stain or uncovered waste cooking oil buckets at the reserved area for EcoPark's Wastewater Treatment Plant (WWTP) were observed.

Completed



3. As advised by the tenant, stagnant water observed in the last audit had been removed. The tenant was reminded to remove the stagnant water newly observed at the reserved area for EcoPark's Wastewater Treatment Plant (WWTP).

Completed



### **Audit Summary and Sign-off**

The site is generally tidy and some actions were recommended to the Tenant.

	ET	IEC*	Tenant	Operator
Organisation	SMEC Asia Ltd	Scott Wilson Ltd	Champway	Serco Guardian JV
Signed By	Antony WONG	-	Gloria CHAN	Morgan CHIU
Role	ET Leader	-	Assistant Procurement Officer	Park Manager
Signature	tony		SNY	1

Note: \* IEC to sign-off only for a joint ET+IEC Inspection



	Audit Details							
Ten	ant	Champway Tech	nolo	gy Lin	nited			
Dat	e & Time	Date 29 Septer	nber	2010			Time	10:30am
Lot	No.	EP07-03			_			
Aud	dit Ref.	2						
IEC	Joint Inspection	Yes	$\boxtimes$	No				
Wea	ather Conditions			Hazy			Ove	ercast Rain
Win	nd	Calm	$\boxtimes$	Light	Breez	ze	Stro	ong Wind
Ten	nperature	32 °C						
Hur	nidity	Low		Medi	um		Hig	h
	1. General							
	Description			,	⁄es	No	N/A	Remarks
1.1	EP for Tenant displated entrance?	ayed on notice boa	ards	/				EP for EcoPark (EP-226/2005/A) is displayed at the entrance of EcoPark. EP for tenant is not required.
1.2	Environmental Police	cy documented?						Operator's Environmental Policy is documented. Tenant follows this.
1.3	Environmental Man	agement Plan upc	lated	1?				
1.4	a. Emergency Resp documented?	ponse Plan (ERP)					$\boxtimes$	Operator's ERP is documented. Tenant follows this.
	b. Drill / training rec	ords available?						Tenant does not keep records for ERP training.
1.5	Employee's training	record available?	1		$\boxtimes$			Tenant keeps a training record for BPI.
1.6	Any record of prose	ecution / complaint	?			$\boxtimes$		
1.7	Waste Managemen	t Plan?						Operator's WMP is documented. Tenant follows this.



	2. Water Quality				
	Description	Yes	No	N/A	Remarks
2.1	Valid Effluent Discharge License available?	$\boxtimes$			Licence No.: WT00004430-2009.
2.2	Any wastewater treatment facility prior to effluent discharge?	$\boxtimes$			Oil interceptor & grease trap.
	If yes, facility is properly maintained and function normally?	$\boxtimes$			
2.3	Effluent Monitoring a. Sampling / Monitoring Record available?		$\boxtimes$		As per the discharge licence, self-monitoring shall be performed when required.
	b. Monitoring frequency met the license requirement?			$\boxtimes$	No sampling was undertaken.
	c. Any exceedance?			$\boxtimes$	No sampling was undertaken.
	d. If yes, follow-up action taken?			$\boxtimes$	No sampling was undertaken.
2.4	Surface run-off control measures in place and adequately maintained?	$\boxtimes$			
2.5	Surface run-off discharging into drainage system?				
2.6	All manholes are covered?	$\boxtimes$			
2.7	Foam, oil, grease, litter or other objectionable matters in water of nearby drain / sewer are avoided?	$\boxtimes$			
2.8	Drainage system is well maintained to prevent flooding and overflow?	$\boxtimes$			



	Description	Yes	No	N/A	Remarks
	Processes with high Risk of Contamination	$\boxtimes$			
9	a. Processes / activities are located under a covered area?				
-	b. Stop-logs installed in the perimeter drainage system for uncovered areas?		$\boxtimes$		The stop-logs have been passed to Tenant, who shall install in the perimeter drainage channel as and when necessary.
-	c. Contaminated water collected in the surface drainage systems is treated at water treatment facility / other appropriate treatment facility?			$\boxtimes$	No contaminated water.
10	Equipment oil and lubrication replacements are performed only in bunded maintenance area?			$\boxtimes$	Oil replacement (of the heat (oil transmission system) carried ou off-site when needed. This may be necessary only once every ten years or maybe not at all.
11	a. Oil interceptor provided for drainage discharging from maintenance area?				
-	b. If yes, oil and grease removed regularly?				
-	c. Collected by licenced collector?				
2	Cargo Handling  a. Cargo Handling Guideline available and followed to minimise chance of accidental spillage when loading or unloading?				
-	b. Materials and bulk cargo are properly packed?			$\boxtimes$	



#### 3. Air Quality Yes N/A **Description** No **Remarks** a. Valid Specified Process License for all SP No. L-25-017 (1). 3.1 $\boxtimes$ specified process available? $\boxtimes$ b. SP License conditions / monitoring requirements met? $\boxtimes$ Odour 3.2 a. Any odour detected? $\boxtimes$ b. If yes, can the source be identified? $\Box$ From the storage of grease trap $\boxtimes$ c. Odorous materials are covered? $\boxtimes$ d. If odour control system is installed, is it operating normally? 3.3 All dusty materials are sprayed with water $\boxtimes$ No dusty materials were found to or covered by impervious sheeting prior to be used on-site. any loading, unloading or transfer operation? **Dust Monitoring** $\boxtimes$ Dust monitoring is not required according to PRC. a. Monitoring Record available? 3.4 b. Monitoring frequency met the $\Box$ $\boxtimes$ requirement? c. Any exceedance? $\boxtimes$ d. If yes, follow-up action taken? $\boxtimes$ 3.5 Enclosures are provided around the main $\Box$ $\boxtimes$ dust-generating activities? Open burning is avoided? $\boxtimes$



	3. Air Quality (continued)				
	Description	Yes	No	N/A	Remarks
3.7	Dark smoke emitted from chimney or powered plant is avoided?				
3.8	Vehicles and equipment are switched off while not in use?				
3.9	Approval certificate issued by the Authority is available for furnace, oven or chimney consuming:			$\boxtimes$	
	<ul><li>a. &gt;25L of conventional liquid fuel per hour</li><li>b. &gt;35kg of conventional solid fuel per hour</li></ul>				
	c. >1,150 MJ of any gaseous fuel per hour			$\boxtimes$	
3.10	Approval from Authority is available for the use of liquid fuel with a viscosity point of ignition >30 centistokes or an equivalent viscosity?			$\boxtimes$	
3.11	Dust collected by any air pollution control equipment installed by tenants must be tested to ensure compliance for landfill disposal.				
3.12	Approval from Authority for the use of controlled refrigerant?			$\boxtimes$	
	b. If yes, record of refrigeration equipment service available?				
3.13	All air pollution control systems are properly maintained and function normally?	$\boxtimes$			
3.14	Only Ultra-Low Sulphur Diesel is used?				Used by all diesel vehicles, forklift truck and emergency generator.



#### 4. Waste / Chemical Management **Description** Yes No N/A **Remarks Chemical Waste Producer Registration** Registration No. 6311-421-4.1 $\boxtimes$ completed? C3617-01 for spent lubricating oil and spent mineral oil. 4.2 Provision of sufficient waste disposal points/ $\boxtimes$ receptacles? $\boxtimes$ 4.3 Waste disposed of regularly and properly? 2-3 times a week. $\boxtimes$ 4.4 Sorting of materials on-site for reuse or disposal to designated outlet? Record of quantities of waste generated, $\boxtimes$ 4.5 recycled and disposed properly kept and easily retrieved for inspection? Sludge is collected by a licensed collector at $\boxtimes$ 4.6 regular intervals? Packaging of Chemical Waste $\boxtimes$ a. Stored in suitable container? 4.7 b. Container properly closed or sealed? $\boxtimes$ c. Spillage cleaned up immediately through $\Box$ $\boxtimes$ No spillage. the use of an absorbent? d. Approval obtained for capacity of $\boxtimes$ containers > 450L? Labelling of Chemical Waste $\boxtimes$ a. Label is securely attached, clean and 4.8 visible? b. Label is in proper dimension and $\boxtimes$ bilingual? c. Information is accurate and sufficient? $\boxtimes$



	Description	Yes	No	N/A	Remarks
.9	Storage of Chemical Waste  a. Proper "Chemical Waste" signs are displayed?				Not observed.
	b. Incompatible wastes separated by an impermeable partition?			$\boxtimes$	Not observed.
	c. Containers kept in receptacle of suitable material and construction ( <i>if quantity</i> <50L) or drip trays capable of storing 110% of the volume of largest ( <i>if quantity</i> >50L)?				Not observed.
•	d. Enclosed on 3 sides with no less than 2m in height or height of tallest container or stack of containers?				Not observed.
•	e. Containers with chemical waste are properly stored and locked at designated area which is clean and dry?			$\boxtimes$	Not observed.
•	f. Adequacy of area ventilation?			$\boxtimes$	Not observed.
•	g. Outdoors storage area should be covered?			$\boxtimes$	
10	Chemical wastes are collected by a licensed chemical waste collector? (retention of trip ticket copies for 12 months)			$\boxtimes$	No collection.
.11	Storage of Liquid Waste  a. Storage area floor/surface permeation-proof?				No bulk storage.
•	b. Capacity of retention structure sufficient to accommodate contents of the largest container or 20% volume of waste in storage?			$\boxtimes$	No bulk storage.
	c. Walls or partitions of stacked container storage area constructed of impermeable material?			$\boxtimes$	No bulk storage.



#### 5. Other Issues **Description** No N/A Remarks Landfill Gas Hazard Outside the LFG Consultation $\boxtimes$ (within LFG Consultation Zone) Zone. 5.1 a. Workers and visitors alerted to possible LGF hazards? $\boxtimes$ b. Smoking and open fires prohibited? $\boxtimes$ 5.2 Security lighting directed downward into the work areas to prevent glare to the surrounding receivers? $\boxtimes$ П 5.3 Good housekeeping? 5.4 Any areas within the lot to be used for recycling processes are concrete paved? $\boxtimes$ 5.5 Valid calibration certificate for any No monitoring equipment. monitoring equipment? DG licences for storing sulphuric acid, methanol and fatty acid methyl esters (FAME) obtained (Nos. 021229, 021228 & 021227, and 021225 & 021226). DG licence for manufacturing FAME obtained (No. 001456). $\boxtimes$ **Dangerous Goods** 5.6 a. Valid license for manufacturing / storing dangerous goods? b. Storage area in compliance with the $\boxtimes$ approved plan? $\boxtimes$ П c. Storage area(s) has been securely locked? d. Total storage capacity in compliance with $\boxtimes$ the relevant statutory requirement? e. Proper Labelling? $\boxtimes$ f. Dangerous goods properly packaged? $\boxtimes$ Potential stagnant pools cleared and $\boxtimes$ mosquito breeding prevented?



### **Action Items from This Audit**

No. Action Expected By

1. NIL. NIL

### **Follow-up from Previous Audits**

### No. Follow-up from Previous Audit Dated 30 August 2010

**Status** 

1. Chemical waste containers were not observed.

Completed



2. The rubber tube of the oil filling station was hung above the drip tray.

Completed



### **Audit Summary and Sign-off**

The site is generally tidy.

	ET	IEC*	Tenant	Operator
Organisation	SMEC Asia Ltd	Scott Wilson Ltd	Champway	Serco Guardian JV
Signed By	Antony WONG	-	Gloria CHAN	Morgan CHIU
Role	ET Leader	-	Assistant Procurement Officer	Park Manager
Signature	Dutant		SNJ	1

Note: \* IEC to sign-off only for a joint ET+IEC Inspection



	Audit Details						
Te	enant	Champway Tech	nolo	gy Ltd			
Da	ate & Time	Date 27 October	er 20	10		Tin	ne <u>11:00am</u>
Lo	ot No.	EP07-03		_			
Aı	udit Ref.	3		_			
IE	C Joint Inspection			No			
W	eather Conditions			Hazy			Overcast Rain
W	ind	Calm		Light Br	eeze	$\boxtimes$	Strong Wind
Te	emperature	22 °C					
Н	umidity			Medium			High
	1. General						
	Description			Yes	No	N/A	Remarks
1.1	EP for Tenant displ	ayed on notice boa	ards				EP for EcoPark (EP-226/2005/A) is
	at entrance?						displayed at the entrance of EcoPark. EP for tenant is not required.
1.2	Environmental Police	cy documented?				$\boxtimes$	Operator's Environmental Policy is documented. Tenant follows this.
							documented. Tenant follows this.
1.3	Environmental Man	agement Plan und	latod	12 🗆		$\square$	
1.0	Environmental wan	agement i lan upc	alco	'' Ш	Ш		
1.4	a. Emergency Resp	oonse Plan (ERP)				$\boxtimes$	Operator's ERP is documented. Tenant follows this.
	documented?						Tollows triis.
	b Drill / training a gar						Toward days not be an accordance EDD
	b. Drill / training red	ords available?		Ш			Tenant does not keep records for ERP training.
1.5	Employee's training	record available?	ı	$\boxtimes$			Tenant keeps a training record for BPI.
1.6	Any record of prose	ecution / complaint	?		$\boxtimes$		
1.7	Waste Managemer	nt Plan?				$\boxtimes$	Operator's WMP is documented.
						_	Tenant follows this.
(							



# 2. Water Quality **Description** Yes No N/A Remarks Valid Effluent Discharge License available? Licence No.: WT00004430-2009. 2.1 2.2 Any wastewater treatment facility prior to Oil interceptor & grease trap. effluent discharge? If yes, facility is properly maintained and function normally? **Effluent Monitoring** $\boxtimes$ As per the discharge licence, selfmonitoring shall be performed when 2.3 a. Sampling / Monitoring Record available? required. b. Monitoring frequency met the license $\boxtimes$ No sampling was undertaken. requirement? No sampling was undertaken. c. Any exceedance? $\boxtimes$ d. If yes, follow-up action taken? No sampling was undertaken. Surface run-off control measures in place and adequately maintained? 2.5 Surface run-off discharging into drainage system? 2.6 All manholes are covered? Foam, oil, grease, litter or other 2.7 objectionable matters in water of nearby drain / sewer are avoided? 2.8 Drainage system is well maintained to prevent flooding and overflow?



	Description	Yes	No	N/A	Remarks
	Processes with high Risk of Contamination				
.9	a. Processes / activities are located under a covered area?				
_	b. Stop-logs installed in the perimeter drainage system for uncovered areas?				The stop-logs have been passed to Tenant, who shall install in the perimeter drainage channel as and when necessary.
_	c. Contaminated water collected in the surface drainage systems is treated at water treatment facility / other appropriate treatment facility?				No contaminated water.
.10	Equipment oil and lubrication replacements are performed only in bunded maintenance area?				Oil replacement (of the heat (oil) transmission system) is carried out offsite when needed. This may be necessary only once every ten years or maybe not at all.
11	a. Oil interceptor provided for drainage discharging from maintenance area?	$\boxtimes$			
-	b. If yes, oil and grease removed regularly?	$\boxtimes$			
_	c. Collected by licenced collector?	$\boxtimes$			
.12	Cargo Handling  a. Cargo Handling Guideline available and followed to minimise chance of accidental spillage when loading or unloading?				
_	b. Materials and bulk cargo are properly packed?			$\boxtimes$	



	3. Air Quality				
	Description	Yes	No	N/A	Remarks
3.1	a. Valid Specified Process License for all specified process available?				SP No. L-25-017 (1).
	b. SP License conditions / monitoring requirements met?	$\boxtimes$			The monitoring result indicates very low methanol emission from the facilities.
	Odour	$\boxtimes$			
3.2	a. Any odour detected?				
	b. If yes, can the source be identified?				From the storage of grease trap waste.
	c. Odorous materials are covered?				
	d. If odour control system is installed, is it operating normally?				
3.3	All dusty materials are sprayed with water or covered by impervious sheeting prior to any loading, unloading or transfer operation?				No dusty materials were found to be used on-site.
3.4	Dust Monitoring a. Monitoring Record available?				Dust monitoring is not required according to PRC.
	b. Monitoring frequency met the requirement?				
	c. Any exceedance?			$\boxtimes$	
	d. If yes, follow-up action taken?			$\boxtimes$	
3.5	Enclosures are provided around the main dust-generating activities?				
3.6	Open burning is avoided?				



	3. Air Quality (continued)				
	Description	Yes	No	N/A	Remarks
3.7	Dark smoke emitted from chimney or powered plant is avoided?				
3.8	Vehicles and equipment are switched off while not in use?	$\boxtimes$			
3.9	Approval certificate issued by the Authority is available for furnace, oven or chimney consuming:			$\boxtimes$	
-	<ul><li>a. &gt;25L of conventional liquid fuel per hour</li><li>b. &gt;35kg of conventional solid fuel per hour</li></ul>			$\boxtimes$	
-	c. >1,150 MJ of any gaseous fuel per hour			$\boxtimes$	
3.10	Approval from Authority is available for the use of liquid fuel with a viscosity point of ignition >30 centistokes or an equivalent viscosity?			$\boxtimes$	
3.11	Dust collected by any air pollution control equipment installed by tenants must be tested to ensure compliance for landfill disposal.			$\boxtimes$	
3.12	Approval from Authority for the use of controlled refrigerant?			$\boxtimes$	
•	b. If yes, record of refrigeration equipment service available?			$\boxtimes$	
3.13	All air pollution control systems are properly maintained and function normally?	$\boxtimes$			
3.14	Only Ultra-Low Sulphur Diesel is used?	$\boxtimes$			Used by all diesel vehicles, fork-lift truck and emergency generator.



## 4. Waste / Chemical Management **Description** Yes No N/A Remarks Registration No. 6311-421-C3617-01 **Chemical Waste Producer Registration** 4.1 completed? for spent lubricating oil and spent mineral oil. 4.2 Provision of sufficient waste disposal points/ $\square$ $\square$ receptacles? Waste disposed of regularly and properly? 2-3 times a week. 4.4 Sorting of materials on-site for reuse or disposal to designated outlet? 4.5 Record of quantities of waste generated, recycled and disposed properly kept and easily retrieved for inspection? Sludge is collected by a licensed collector at 4.6 regular intervals? Packaging of Chemical Waste a. Stored in suitable container? 4.7 b. Container properly closed or sealed? c. Spillage cleaned up immediately through $\boxtimes$ No spillage. the use of an absorbent? $\square$ $\square$ $\square$ d. Approval obtained for capacity of containers > 450L? Labelling of Chemical Waste a. Label is securely attached, clean and 4.8 visible? b. Label is in proper dimension and $\square$ $\square$ $\square$ bilingual? c. Information is accurate and sufficient?



	4. Waste / Chemical Management (con	tinue	d)	<u>'</u>	
	Description	Yes	No	N/A	Remarks
4.9	Storage of Chemical Waste  a. Proper "Chemical Waste" signs are displayed?				Not observed.
	b. Incompatible wastes separated by an impermeable partition?				Not observed.
	c. Containers kept in receptacle of suitable material and construction ( <i>if quantity &lt;50L</i> ) or drip trays capable of storing 110% of the volume of largest ( <i>if quantity &gt;50L</i> )?			$\boxtimes$	Not observed.
	d. Enclosed on 3 sides with no less than 2m in height or height of tallest container or stack of containers?				Not observed.
	e. Containers with chemical waste are properly stored and locked at designated area which is clean and dry?			$\boxtimes$	Not observed.
	f. Adequacy of area ventilation?			$\boxtimes$	Not observed.
•	g. Outdoors storage area should be covered?			$\boxtimes$	
4.10	Chemical wastes are collected by a licensed chemical waste collector? (retention of trip ticket copies for 12 months)				No collection.
4.11	Storage of Liquid Waste  a. Storage area floor/surface permeation-proof?			$\boxtimes$	No bulk storage.
	b. Capacity of retention structure sufficient to accommodate contents of the largest container or 20% volume of waste in storage?				No bulk storage.
	c. Walls or partitions of stacked container storage area constructed of impermeable material?			$\boxtimes$	No bulk storage.



# 5. Other Issues **Description** Yes No N/A Remarks Outside the LFG Consultation Zone. Landfill Gas Hazard $\boxtimes$ (within LFG Consultation Zone) 5.1 a. Workers and visitors alerted to possible LGF hazards? b. Smoking and open fires prohibited? $\boxtimes$ 5.2 Security lighting directed downward into the $\boxtimes$ work areas to prevent glare to the surrounding receivers? 5.3 Good housekeeping? Any areas within the lot to be used for recycling processes are concrete paved? 5.5 Valid calibration certificate for any No monitoring equipment. monitoring equipment? $\square$ DG licences for storing methanol, sulphuric **Dangerous Goods** acid and fatty acid methyl esters (FAME) 5.6 a. Valid license for manufacturing / storing obtained (Nos. 021229, 021228 & 021227, dangerous goods? and 021225 & 021226). DG licence for manufacturing FAME obtained (No. 001456). b. Storage area in compliance with the approved plan? c. Storage area(s) has been securely locked? d. Total storage capacity in compliance with $\square$ $\square$ the relevant statutory requirement? e. Proper Labelling? f. Dangerous goods properly packaged? $\square$ $\square$ $\square$ Potential stagnant pools cleared and mosquito breeding prevented?



#### No. Action

**Expected By** 

 Chemical drums were placed on bare ground outside the laboratory. The Tenant was reminded to place chemicals in a proper storage area. 1 Nov 2010



 Oil stain was found at the reserved area for EcoPark's Wastewater Treatment Plant (WWTP). The Tenant was reminded to remove the oil stain and dispose of the waste properly.

8 Nov 2010



### Follow-up from Previous Audits

No. Follow-up from Previous Audit Dated 29 September 2010

Status

NIL.

NIL.

### **Audit Summary and Sign-off**

The site is generally tidy.

	ET	IEC*	Tenant	Operator
Organisation	SMEC Asia Ltd	Scott Wilson Ltd	Champway	Serco Guardian JV
Signed By	Antony WONG	KK KWOK	Gloria CHAN	Morgan CHIU
Role	ET Leader	IEC Representative	Assistant Procurement Officer	Park Manager
Signature	Dutay	Etter	SNJ	13



# **APPENDIX 6.4**

Tenant-specific Audit Checklists for the Reporting Quarter

Hung Wai (EP06-034)

32 °C

**Temperature** 

Humidity



Audit Details					
Tenant	Hong Kong H	ung Wai Wooden Boa	ard Company		
Date & Time	Date 29 Sep	otember 2010	Time 10:00		
Lot No.	EP06-034				
Audit Ref.	1				
IEC Joint Inspection	Yes	⊠ No			
Weather Conditions		☐ Hazy	Overcast	Rain	
Wind	Calm		☐ Strong Wind		

High

Medium

Description	Yes	No	N/A	Remarks
EP for Tenant displayed on notice boards / at entrance?				EP for EcoPark (EP-226/2005/A is displayed at the entrance of EcoPark. EP for tenant is not required.
Environmental Policy documented?			$\boxtimes$	Operator's Environmental Policy is documented. Tenant follows this.
Environmental Management Plan updated?			$\boxtimes$	
a. Emergency Response Plan (ERP) documented?				Operator's ERP is documented. Tenant follows this.
b. Drill / training records available?				To be checked with the tenant.
Employee's training record available?			$\boxtimes$	To be checked with the tenant.
Any record of prosecution / complaint?		$\boxtimes$		
Waste Management Plan?			$\boxtimes$	Operator's WMP is documented Tenant follows this.



	2. Water Quality				
	Description	Yes	No	N/A	Remarks
2.1	Valid Effluent Discharge License available?				Not required
2.2	Any wastewater treatment facility prior to effluent discharge?			$\boxtimes$	
	If yes, facility is properly maintained and function normally?			$\boxtimes$	
2.3	Effluent Monitoring a. Sampling / Monitoring Record available?			$\boxtimes$	
	b. Monitoring frequency met the license requirement?				
	c. Any exceedance?			$\boxtimes$	
	d. If yes, follow-up action taken?			$\boxtimes$	
2.4	Surface run-off control measures in place and adequately maintained?			$\boxtimes$	
2.5	Surface run-off discharging into drainage system?	$\boxtimes$			
2.6	All manholes are covered?	$\boxtimes$			
2.7	Foam, oil, grease, litter or other objectionable matters in water of nearby drain / sewer are avoided?	$\boxtimes$			
2.8	Drainage system is well maintained to prevent flooding and overflow?				



	Description	Yes	No	N/A	Remarks
	Processes with high Risk of Contamination	$\boxtimes$			The risk of contamination for the recycling process is low.
9	Processes / activities are located under a covered area?				
_	b. Stop-logs installed in the perimeter drainage system for uncovered areas?				The stop-logs have been passed to Tenant, who shall install in the perimeter drainage channel as and when necessary.
-	c. Contaminated water collected in the surface drainage systems is treated at water treatment facility / other appropriate treatment facility?			$\boxtimes$	No contaminated water was found.
10	Equipment oil and lubrication replacements are performed only in bunded maintenance area?				Not observed.
11	a. Oil interceptor provided for drainage discharging from maintenance area?				Not required.
-	b. If yes, oil and grease removed regularly?			$\boxtimes$	
-	c. Collected by licenced collector?				
-	Cargo Handling  a. Cargo Handling Guideline available and followed to minimise chance of accidental spillage when loading or unloading?				Not required.
-	b. Materials and bulk cargo are properly packed?			$\boxtimes$	



	3. Air Quality				
	Description	Yes	No	N/A	Remarks
3.1	a. Valid Specified Process License for all specified process available?				Not required.
	b. SP License conditions / monitoring requirements met?				
3.2	Odour a. Any odour detected?		$\boxtimes$		
	b. If yes, can the source be identified?			$\boxtimes$	
	c. Odorous materials are covered?				
	d. If odour control system is installed, is it operating normally?				
3.3	All dusty materials are sprayed with water or covered by impervious sheeting prior to any loading, unloading or transfer operation?				The shredding process is carried out under a sheltered area.
3.4	Dust Monitoring a. Monitoring Record available?		$\boxtimes$		Not required.
	b. Monitoring frequency met the requirement?			$\boxtimes$	
	c. Any exceedance?			$\boxtimes$	
	d. If yes, follow-up action taken?			$\boxtimes$	
3.5	Enclosures are provided around the main dust-generating activities?				
3.6	Open burning is avoided?	$\boxtimes$			



	3. Air Quality (continued)				
	Description	Yes	No	N/A	Remarks
3.7	Dark smoke emitted from chimney or powered plant is avoided?				
3.8	Vehicles and equipment are switched off while not in use?	$\boxtimes$			
3.9	Approval certificate issued by the Authority is available for furnace, oven or chimney consuming:			$\boxtimes$	
	<ul><li>a. &gt;25L of conventional liquid fuel per hour</li><li>b. &gt;35kg of conventional solid fuel per hour</li></ul>			$\boxtimes$	
	c. >1,150 MJ of any gaseous fuel per hour			$\boxtimes$	
3.10	Approval from Authority is available for the use of liquid fuel with a viscosity point of ignition >30 centistokes or an equivalent viscosity?			$\boxtimes$	
3.11	Dust collected by any air pollution control equipment installed by tenants must be tested to ensure compliance for landfill disposal.				
3.12	Approval from Authority for the use of controlled refrigerant?				
	b. If yes, record of refrigeration equipment service available?				
3.13	All air pollution control systems are properly maintained and function normally?			$\boxtimes$	
3.14	Only Ultra-Low Sulphur Diesel is used?	$\boxtimes$			



#### 4. Waste / Chemical Management **Description** Yes No N/A **Remarks** $\boxtimes$ **Chemical Waste Producer Registration** 4.1 To be checked with the tenant. completed? 4.2 Provision of sufficient waste disposal points/ $\boxtimes$ receptacles? $\boxtimes$ 4.3 Waste disposed of regularly and properly? $\boxtimes$ 4.4 Sorting of materials on-site for reuse or disposal to designated outlet? Record of quantities of waste generated, $\boxtimes$ 4.5 recycled and disposed properly kept and easily retrieved for inspection? Sludge is collected by a licensed collector at $\boxtimes$ 4.6 regular intervals? Packaging of Chemical Waste $\boxtimes$ No chemical wastes were observed. a. Stored in suitable container? 4.7 b. Container properly closed or sealed? $\boxtimes$ No chemical wastes were observed. c. Spillage cleaned up immediately through $\Box$ $\boxtimes$ No chemical wastes were the use of an absorbent? observed. d. Approval obtained for capacity of $\boxtimes$ No chemical wastes were containers > 450L? observed. Labelling of Chemical Waste $\boxtimes$ No chemical wastes were observed. a. Label is securely attached, clean and 4.8 visible? b. Label is in proper dimension and $\Box$ $\Box$ $\boxtimes$ No chemical wastes were observed. bilingual? c. Information is accurate and sufficient? $\boxtimes$ No chemical wastes were observed.



#### 4. Waste / Chemical Management (continued) **Description** Yes No N/A **Remarks** Storage of Chemical Waste $\boxtimes$ 4.9 a. Proper "Chemical Waste" signs are displayed? b. Incompatible wastes separated by an $\boxtimes$ impermeable partition? c. Containers kept in receptacle of suitable П $\boxtimes$ material and construction (if quantity <50L) or drip trays capable of storing 110% of the volume of largest (if quantity >50L)? d. Enclosed on 3 sides with no less than 2m $\boxtimes$ in height or height of tallest container or stack of containers? e. Containers with chemical waste are $\boxtimes$ properly stored and locked at designated area which is clean and dry? $\boxtimes$ f. Adequacy of area ventilation? g. Outdoors storage area should be $\boxtimes$ covered? П 4.10 Chemical wastes are collected by a $\boxtimes$ licensed chemical waste collector? (retention of trip ticket copies for 12 months) Storage of Liquid Waste $\boxtimes$ 4.11 a. Storage area floor/surface permeationproof? $\boxtimes$ b. Capacity of retention structure sufficient to accommodate contents of the largest container or 20% volume of waste in storage? $\boxtimes$ c. Walls or partitions of stacked container storage area constructed of impermeable material?



	5. Other Issues				
	Description	Yes	No	N/A	Remarks
	Landfill Gas Hazard (within LFG Consultation Zone)			$\boxtimes$	Outside the LFG Consultation Zone.
5.1	<ul><li>a. Workers and visitors alerted to possible LGF hazards?</li></ul>				
	b. Smoking and open fires prohibited?			$\boxtimes$	
5.2	Security lighting directed downward into the work areas to prevent glare to the surrounding receivers?				
5.3	Good housekeeping?				
5.4	Any areas within the lot to be used for recycling processes are concrete paved?	$\boxtimes$			
5.5	Valid calibration certificate for any monitoring equipment?			$\boxtimes$	
5.6	Dangerous Goods a. Valid license for manufacturing / storing dangerous goods?				There were no DGs stored on site.
	b. Storage area in compliance with the approved plan?			$\boxtimes$	
	c. Storage area(s) has been securely locked?				
	d. Total storage capacity in compliance with the relevant statutory requirement?			$\boxtimes$	
	e. Proper Labelling?			$\boxtimes$	
	f. Dangerous goods properly packaged?				



No. Action

**Expected By** 

NIL

1.

No critical issues were identified.



**Follow-up from Previous Audits** 

No. Follow-up from Previous Audit Dated [Month Year]

Status

1. NIL

NIL

## Audit Summary and Sign-off

No critical issues were identified and the presence of chemical waste is being checked.

	ET	IEC*	Tenant	Operator
Organisation	SMEC Asia Ltd	Scott Wilson Ltd	Hung Wai	Serco Guardian J\
Signed By	Antony WONG	-	Mr Cheung	Morgan CHIU
Role	ET Leader		Representative	Park Manager
Signature	Antony		1881	3



## **Audit Details**

Ter	nant	Hong Kong Hun	g Wai	Wooden Bo	ard	Compan	у
Dat	e & Time	Date 27 Octob	er 201	10		Time	10:30am
Lot	No.	EP06-034		_			
Aud	dit Ref.	2					
IEC	Joint Inspection			No			
We	ather Conditions			Hazy		Ove	ercast Rain
Wir	nd	Calm		Light Breeze	Э	⊠ Stro	ong Wind
Ter	mperature	21 °C					
Hui	midity	<b>⊠</b> Low		Medium		☐ Higl	h
	1. General						
	Description Description			Yes	No	N/A	Remarks
1.1	EP for Tenant disp at entrance?	olayed on notice bo	ards /				EP for EcoPark (EP-226/2005/A) is displayed at the entrance of EcoPark. EP for tenant is not required.
1.2	Environmental Poli	icy documented?					Operator's Environmental Policy is documented. Tenant follows this.
1.3	Environmental Mar	nagement Plan up	dated?	?		$\boxtimes$	
1.4	a. Emergency Res documented?	ponse Plan (ERP)				$\boxtimes$	Operator's ERP is documented. Tenant follows this.
	b. Drill / training red	cords available?					Training has been provided but the records are not available.
1.5	Employee's training	g record available	?			$\boxtimes$	Training has been provided but the records are not available.
1.6	Any record of prose	ecution / complain	t?		$\boxtimes$		
1.7	Waste Managemen	nt Plan?				$\boxtimes$	Operator's WMP is documented. Tenant follows this.
							,



	2. Water Quality				
	Description	Yes	No	N/A	Remarks
2.1	Valid Effluent Discharge License available?				Not required
2.2	Any wastewater treatment facility prior to effluent discharge?			$\boxtimes$	
	If yes, facility is properly maintained and function normally?			$\boxtimes$	
2.3	Effluent Monitoring a. Sampling / Monitoring Record available?			$\boxtimes$	
	b. Monitoring frequency met the license requirement?				
	c. Any exceedance?			$\boxtimes$	
	d. If yes, follow-up action taken?			$\boxtimes$	
2.4	Surface run-off control measures in place and adequately maintained?			$\boxtimes$	
2.5	Surface run-off discharging into drainage system?	$\boxtimes$			
2.6	All manholes are covered?	$\boxtimes$			
2.7	Foam, oil, grease, litter or other objectionable matters in water of nearby drain / sewer are avoided?	$\boxtimes$			The Tenant has provided wooden plates covering the U-channel for the ease of clearing debris.
2.8	Drainage system is well maintained to prevent flooding and overflow?	$\boxtimes$			The Tenant advised the U-Channel was regularly cleared.



	Description	Yes	No	N/A	Remarks
	Processes with high Risk of Contamination	$\boxtimes$			The risk of contamination for the recycling process is low.
)	a. Processes / activities are located under a covered area?				
-	b. Stop-logs installed in the perimeter drainage system for uncovered areas?				The stop-logs have been passe to Tenant, who shall install in th perimeter drainage channel as and when necessary.
-	c. Contaminated water collected in the surface drainage systems is treated at water treatment facility / other appropriate treatment facility?			$\boxtimes$	No contaminated water was found.
0	Equipment oil and lubrication replacements are performed only in bunded maintenance area?				Not observed.
1	a. Oil interceptor provided for drainage discharging from maintenance area?			$\boxtimes$	Not required.
-	b. If yes, oil and grease removed regularly?				
-	c. Collected by licenced collector?			$\boxtimes$	
2	Cargo Handling  a. Cargo Handling Guideline available and followed to minimise chance of accidental spillage when loading or unloading?				Not required.
-	b. Materials and bulk cargo are properly	П		$\boxtimes$	



	3. Air Quality					
	Description	Yes	No	N/A	Remarks	
3.1	a. Valid Specified Process License for all specified process available?				Not required.	
	b. SP License conditions / monitoring requirements met?			$\boxtimes$		
3.2	Odour  a. Any odour detected?		$\boxtimes$			
	b. If yes, can the source be identified?			$\boxtimes$		
	c. Odorous materials are covered?			$\boxtimes$		
	d. If odour control system is installed, is it operating normally?			$\boxtimes$		
3.3	All dusty materials are sprayed with water or covered by impervious sheeting prior to any loading, unloading or transfer operation?		$\boxtimes$		See Action#1.	
3.4	Dust Monitoring a. Monitoring Record available?		$\boxtimes$		Not required.	
	b. Monitoring frequency met the requirement?			$\boxtimes$		
	c. Any exceedance?			$\boxtimes$		
	d. If yes, follow-up action taken?			$\boxtimes$		
3.5	Enclosures are provided around the main dust-generating activities?					
	Open burning is avoided?	$\boxtimes$				



	3. Air Quality (continued)				
	Description	Yes	No	N/A	Remarks
3.7	Dark smoke emitted from chimney or powered plant is avoided?				There is no chimney installed onsite.
3.8	Vehicles and equipment are switched off while not in use?	$\boxtimes$			
3.9	Approval certificate issued by the Authority is available for furnace, oven or chimney consuming:  a. >25L of conventional liquid fuel per hour			$\boxtimes$	
	b. >35kg of conventional solid fuel per hour			$\boxtimes$	
	c. >1,150 MJ of any gaseous fuel per hour			$\boxtimes$	
3.10	Approval from Authority is available for the use of liquid fuel with a viscosity point of ignition >30 centistokes or an equivalent viscosity?				
3.11	Dust collected by any air pollution control equipment installed by tenants must be tested to ensure compliance for landfill disposal.			$\boxtimes$	
3.12	Approval from Authority for the use of controlled refrigerant?			$\boxtimes$	
	b. If yes, record of refrigeration equipment service available?				
3.13	All air pollution control systems are properly maintained and function normally?				
3.14	Only Ultra-Low Sulphur Diesel is used?				



#### 4. Waste / Chemical Management **Description** Yes No N/A **Remarks Chemical Waste Producer Registration** $\boxtimes$ 4.1 Not required. completed? 4.2 Provision of sufficient waste disposal points/ $\boxtimes$ receptacles? $\boxtimes$ 4.3 Waste disposed of regularly and properly? $\boxtimes$ П 4.4 Sorting of materials on-site for reuse or disposal to designated outlet? Record of quantities of waste generated, $\boxtimes$ 4.5 recycled and disposed properly kept and easily retrieved for inspection? Sludge is collected by a licensed collector at $\boxtimes$ 4.6 regular intervals? Packaging of Chemical Waste $\boxtimes$ No chemical wastes were observed. a. Stored in suitable container? 4.7 b. Container properly closed or sealed? $\boxtimes$ No chemical wastes were observed. c. Spillage cleaned up immediately through $\Box$ $\boxtimes$ No chemical wastes were the use of an absorbent? observed. d. Approval obtained for capacity of $\boxtimes$ No chemical wastes were observed. containers > 450L? Labelling of Chemical Waste $\boxtimes$ No chemical wastes were observed. a. Label is securely attached, clean and 4.8 visible? b. Label is in proper dimension and $\Box$ $\Box$ $\boxtimes$ No chemical wastes were observed. bilingual? c. Information is accurate and sufficient? $\boxtimes$ No chemical wastes were observed.



#### 4. Waste / Chemical Management (continued) **Description** Yes No N/A **Remarks** Storage of Chemical Waste $\boxtimes$ 4.9 a. Proper "Chemical Waste" signs are displayed? b. Incompatible wastes separated by an $\boxtimes$ impermeable partition? c. Containers kept in receptacle of suitable П $\boxtimes$ material and construction (if quantity <50L) or drip trays capable of storing 110% of the volume of largest (if quantity >50L)? d. Enclosed on 3 sides with no less than 2m $\boxtimes$ in height or height of tallest container or stack of containers? e. Containers with chemical waste are $\boxtimes$ properly stored and locked at designated area which is clean and dry? $\boxtimes$ f. Adequacy of area ventilation? g. Outdoors storage area should be $\boxtimes$ covered? П 4.10 Chemical wastes are collected by a $\boxtimes$ licensed chemical waste collector? (retention of trip ticket copies for 12 months) $\boxtimes$ Storage of Liquid Waste 4.11 a. Storage area floor/surface permeationproof? $\boxtimes$ b. Capacity of retention structure sufficient to accommodate contents of the largest container or 20% volume of waste in storage? $\boxtimes$ c. Walls or partitions of stacked container storage area constructed of impermeable material?



	5. Other Issues				
	Description	Yes	No	N/A	Remarks
	Landfill Gas Hazard (within LFG Consultation Zone)			$\boxtimes$	Outside the LFG Consultation Zone.
5.1	a. Workers and visitors alerted to possible LGF hazards?				
	b. Smoking and open fires prohibited?				
5.2	Security lighting directed downward into the work areas to prevent glare to the surrounding receivers?			$\boxtimes$	
5.3	Good housekeeping?	$\boxtimes$			
5.4	Any areas within the lot to be used for recycling processes are concrete paved?	$\boxtimes$			
5.5	Valid calibration certificate for any monitoring equipment?			$\boxtimes$	
5.6	Dangerous Goods  a. Valid license for manufacturing / storing dangerous goods?			$\boxtimes$	There were no DGs stored on site.
	b. Storage area in compliance with the approved plan?			$\boxtimes$	
	c. Storage area(s) has been securely locked?			$\boxtimes$	
	d. Total storage capacity in compliance with the relevant statutory requirement?			$\boxtimes$	
	e. Proper Labelling?				
	f. Dangerous goods properly packaged?				
5.7	Potential stagnant pools cleared and mosquito breeding prevented?				



### No. Action

**Expected By** 

1. Although the shredding process was carried out under a sheltered area, fugitive dust mainly arising from packaging of shredded wood chips was observed. The Tenant was suggested to minimize the gap between the outlet and packaging bags.

1 Nov 2010



### Follow-up from Previous Audits

No. Follow-up from Previous Audit Dated 29 September 2010

**Status** 

1. NIL.

NIL.

### **Audit Summary and Sign-off**

Tenant should implement various measures to prevent the generation of dust plume.

	ET	IEC*	Tenant	Operator
Organisation	SMEC Asia Ltd	Scott Wilson Ltd	Hung Wai	Serco Guardian JV
Signed By	Antony WONG	KK KWOK	Mr. CHEUNG	Morgan CHIU
Role	ET Leader	IEC Representative	Representative	Park Manager
Signature	Antmy	CCCule	Wooden House	13



# **APPENDIX 6.5**

Tenant-specific Audit Checklists for the Reporting Quarter

Li Tong (EP07-02)



## Audit Details

Ten	ant	Li Tong Group					
Dat	e & Time	Date 27 Octob	er 20	10		Time	11:15am
Lot	No.	EP07-02		_			
Aud	dit Ref.	1		_			
IEC	Joint Inspection	⊠ Yes		No			
Wea	ather Conditions			Hazy		Ove	ercast Rain
Win	nd	Calm		Light Breez	ze	⊠ Stro	ong Wind
Ten	nperature	23_°C					
Hur	midity			Medium		☐ Hig	h
	1. General						
	Description			Yes	No	N/A	Remarks
1.1	EP for Tenant disp at entrance?	layed on notice bo	ards	/			EP for EcoPark (EP-226/2005/A) is displayed at the entrance of EcoPark. EP for tenant is not required.
1.2	Environmental Poli	cy documented?					The Tenant's Environmental Policy is documented.
1.3	Environmental Mar	nagement Plan upo	dated	<b>!?</b> ⊠			The Tenant's EMP is documented.
1.4	a. Emergency Res documented?	ponse Plan (ERP)					The Tenant's ERP is documented.
	b. Drill / training red	cords available?					
1.5	Employee's training	g record available?	?				
1.6	Any record of prose	ecution / complain	1?		$\boxtimes$		
1.7	Waste Managemen	nt Plan?					The Tenant's WMP is documented.



### 2. Water Quality **Description** N/A Yes No **Remarks** 2.1 Valid Effluent Discharge License available? $\boxtimes$ Although domestic sewage is the only source of wastewater on site, the Tenant has made an application of the Effluent Discharge Licence. 2.2 Any wastewater treatment facility prior to $\boxtimes$ effluent discharge? If yes, facility is properly maintained and $\boxtimes$ A chemical/container toilet is function normally? maintained on a monthly basis. $\boxtimes$ **Effluent Monitoring** 2.3 a. Sampling / Monitoring Record available? $\boxtimes$ b. Monitoring frequency met the license requirement? $\boxtimes$ c. Any exceedance? $\boxtimes$ d. If yes, follow-up action taken? 2.4 Surface run-off control measures in place $\boxtimes$ and adequately maintained? 2.5 Surface run-off discharging into drainage $\boxtimes$ system? $\boxtimes$ All manholes are covered? Foam, oil, grease, litter or other $\boxtimes$ 2.7 objectionable matters in water of nearby drain / sewer are avoided? $\boxtimes$ 2.8 Drainage system is well maintained to prevent flooding and overflow?



	Description	Yes	No	N/A	Remarks
	Processes with high Risk of Contamination	$\boxtimes$			The risk of contamination for the recycling process is low.
9	a. Processes / activities are located under a covered area?				
	b. Stop-logs installed in the perimeter drainage system for uncovered areas?				To be checked by the Operator.
_	c. Contaminated water collected in the surface drainage systems is treated at water treatment facility / other appropriate treatment facility?			$\boxtimes$	No contaminated water was found.
0	Equipment oil and lubrication replacements are performed only in bunded maintenance area?				Not observed.
1	a. Oil interceptor provided for drainage discharging from maintenance area?				Not required.
_	b. If yes, oil and grease removed regularly?			$\boxtimes$	
_	c. Collected by licenced collector?			$\boxtimes$	
2	Cargo Handling  a. Cargo Handling Guideline available and followed to minimise chance of accidental spillage when loading or unloading?				Not required.
_	b. Materials and bulk cargo are properly packed?			$\boxtimes$	



	3. Air Quality				
	Description	Yes	No	N/A	Remarks
3.1	a. Valid Specified Process License for all specified process available?				Not required.
	b. SP License conditions / monitoring requirements met?			$\boxtimes$	
3.2	Odour a. Any odour detected?		$\boxtimes$		
0.2	a. Any odour dototto.				
	b. If yes, can the source be identified?			$\boxtimes$	
	c. Odorous materials are covered?			$\boxtimes$	
	d. If odour control system is installed, is it operating normally?				
3.3	All dusty materials are sprayed with water or covered by impervious sheeting prior to any loading, unloading or transfer operation?			$\boxtimes$	
3.4	Dust Monitoring  a. Monitoring Record available?			$\boxtimes$	Not required.
	b. Monitoring frequency met the requirement?			$\boxtimes$	
	c. Any exceedance?			$\boxtimes$	
	d. If yes, follow-up action taken?			$\boxtimes$	
3.5	Enclosures are provided around the main dust-generating activities?				
3.6	Open burning is avoided?	$\boxtimes$			



### 3. Air Quality (continued) **Description** Yes No N/A **Remarks** 3.7 Dark smoke emitted from chimney or $\boxtimes$ There is no chimney installed onpowered plant is avoided? site. Vehicles and equipment are switched off $\boxtimes$ 3.8 while not in use? 3.9 Approval certificate issued by the Authority $\Box$ $\boxtimes$ is available for furnace, oven or chimney consuming: a. >25L of conventional liquid fuel per hour b. >35kg of conventional solid fuel per hour $\boxtimes$ c. >1,150 MJ of any gaseous fuel per hour $\boxtimes$ $\boxtimes$ 3.10 Approval from Authority is available for the use of liquid fuel with a viscosity point of ignition >30 centistokes or an equivalent viscosity? 3.11 Dust collected by any air pollution control $\boxtimes$ equipment installed by tenants must be tested to ensure compliance for landfill disposal. П 3.12 a. Approval from Authority for the use of $\boxtimes$ controlled refrigerant? $\boxtimes$ b. If yes, record of refrigeration equipment service available? 3.13 All air pollution control systems are properly $\boxtimes$ maintained and function normally? 3.14 Only Ultra-Low Sulphur Diesel is used? $\boxtimes$



#### 4. Waste / Chemical Management **Description** Yes No N/A Remarks **Chemical Waste Producer Registration** $\boxtimes$ 4.1 Application is pending. completed? 4.2 Provision of sufficient waste disposal points/ $\boxtimes$ receptacles? $\boxtimes$ 4.3 Waste disposed of regularly and properly? $\boxtimes$ П 4.4 Sorting of materials on-site for reuse or disposal to designated outlet? Record of quantities of waste generated, $\boxtimes$ 4.5 recycled and disposed properly kept and easily retrieved for inspection? Sludge is collected by a licensed collector at $\boxtimes$ 4.6 regular intervals? Packaging of Chemical Waste $\boxtimes$ No chemical wastes were observed. a. Stored in suitable container? 4.7 b. Container properly closed or sealed? $\Box$ $\boxtimes$ No chemical wastes were observed. c. Spillage cleaned up immediately through $\Box$ $\boxtimes$ No chemical wastes were the use of an absorbent? observed. d. Approval obtained for capacity of $\boxtimes$ No chemical wastes were observed. containers > 450L? Labelling of Chemical Waste $\boxtimes$ No chemical wastes were observed. a. Label is securely attached, clean and 4.8 visible? b. Label is in proper dimension and $\Box$ $\Box$ $\boxtimes$ No chemical wastes were observed. bilingual? c. Information is accurate and sufficient? $\boxtimes$ No chemical wastes were observed.



#### 4. Waste / Chemical Management (continued) **Description** Yes No N/A **Remarks** Storage of Chemical Waste $\boxtimes$ 4.9 a. Proper "Chemical Waste" signs are displayed? b. Incompatible wastes separated by an $\boxtimes$ impermeable partition? c. Containers kept in receptacle of suitable $\Box$ $\boxtimes$ material and construction (if quantity <50L) or drip trays capable of storing 110% of the volume of largest (if quantity >50L)? d. Enclosed on 3 sides with no less than 2m $\boxtimes$ in height or height of tallest container or stack of containers? e. Containers with chemical waste are $\boxtimes$ properly stored and locked at designated area which is clean and dry? $\boxtimes$ f. Adequacy of area ventilation? g. Outdoors storage area should be $\boxtimes$ covered? П 4.10 Chemical wastes are collected by a $\boxtimes$ licensed chemical waste collector? (retention of trip ticket copies for 12 months) $\boxtimes$ Storage of Liquid Waste 4.11 a. Storage area floor/surface permeationproof? $\boxtimes$ b. Capacity of retention structure sufficient to accommodate contents of the largest container or 20% volume of waste in storage? $\boxtimes$ c. Walls or partitions of stacked container storage area constructed of impermeable material?



#### 5. Other Issues **Description** Yes No N/A **Remarks** Landfill Gas Hazard Outside the LFG Consultation (within LFG Consultation Zone) Zone. 5.1 a. Workers and visitors alerted to possible LGF hazards? $\boxtimes$ b. Smoking and open fires prohibited? $\boxtimes$ 5.2 Security lighting directed downward into the work areas to prevent glare to the surrounding receivers? $\boxtimes$ 5.3 Good housekeeping? Any areas within the lot to be used for recycling processes are concrete paved? $\boxtimes$ 5.5 Valid calibration certificate for any monitoring equipment? **Dangerous Goods** $\boxtimes$ There were no DGs stored on site. 5.6 a. Valid license for manufacturing / storing dangerous goods? b. Storage area in compliance with the $\boxtimes$ approved plan? c. Storage area(s) has been securely П $\boxtimes$ locked? d. Total storage capacity in compliance with $\boxtimes$ the relevant statutory requirement? e. Proper Labelling? $\boxtimes$ f. Dangerous goods properly packaged? $\Box$ Potential stagnant pools cleared and $\boxtimes$ mosquito breeding prevented?



No. Action Expected By

1. No critical issues were identified. NIL.

### Follow-up from Previous Audits

No. Follow-up from Previous Audit Dated [Month Year] Status

1. NIL.

NIL.

### **Audit Summary and Sign-off**

The site was generally tidy.

	ET	IEC*	Tenant	Operator
Organisation	SMEC Asia Ltd	Scott Wilson Ltd	Li Tong	Serco Guardian JV
Signed By	Antony WONG	KK KWOK	Mr. SO	Morgan CHIU
Role	ET Leader	IEC Representative	Supervisor	Park Manager
Signature	1) iting	4CCml	H'a	13



# **APPENDIX 6.6**

Tenant-specific Audit Checklists for the Reporting Quarter

St. James' (P5)



## Audit Details

Ten	nant	St. James Settle	ement				
Dat	e & Time	Date 27 Octob	er 20	10		Time	12:00noon
Lot	No.	P5		_			
Aud	dit Ref.	1		_			
IEC	Joint Inspection	⊠ Yes		No			
We	ather Conditions			Hazy		Ove	ercast Rain
Wir	nd	Calm		Light Breeze	Э	⊠ Stro	ong Wind
Ten	nperature	23_°C					
Hur	midity			Medium		☐ Higl	h
	1. General						
	Description			Yes	No	N/A	Remarks
1.1	EP for Tenant displ at entrance?	layed on notice bo	oards ,	/			EP for EcoPark (EP-226/2005/A) is displayed at the entrance of EcoPark. EP for tenant is not required.
1.2	Environmental Police	cy documented?					The Operator's Environmental Policy is documented. Tenant follows this.
1.3	Environmental Man	nagement Plan up	dated	? 🗵			The Tenant's EMP is documented.
1.4	a. Emergency Resp documented?	oonse Plan (ERP)	)				The Tenant's ERP is documented.
	b. Drill / training rec	cords available?					
1.5	Employee's training	g record available	?	$\boxtimes$			
1.6	Any record of prose	ecution / complair	it?		$\boxtimes$		
1.7	Waste Managemen	nt Plan?					The Tenant's WMP is documented.



	2. Water Quality				
	Description	Yes	No	N/A	Remarks
2.1	Valid Effluent Discharge License available?				Water for testing washing machines is the only source of wastewater on site.
2.2	Any wastewater treatment facility prior to effluent discharge?		$\boxtimes$		
	If yes, facility is properly maintained and function normally?			$\boxtimes$	
2.3	Effluent Monitoring a. Sampling / Monitoring Record available?			$\boxtimes$	
	b. Monitoring frequency met the license requirement?				
	c. Any exceedance?			$\boxtimes$	
	d. If yes, follow-up action taken?			$\boxtimes$	
2.4	Surface run-off control measures in place and adequately maintained?	$\boxtimes$			
2.5	Surface run-off discharging into drainage system?	$\boxtimes$			
2.6	All manholes are covered?				
2.7	Foam, oil, grease, litter or other objectionable matters in water of nearby drain / sewer are avoided?	$\boxtimes$			
2.8	Drainage system is well maintained to prevent flooding and overflow?	$\boxtimes$			



	Description	Yes	No	N/A	Remarks
	Processes with high Risk of Contamination	$\boxtimes$			The risk of contamination for the recycling process is low.
9	a. Processes / activities are located under a covered area?				
-	b. Stop-logs installed in the perimeter drainage system for uncovered areas?			$\boxtimes$	Stop-logs are not required for the lots of Phase 2.
-	c. Contaminated water collected in the surface drainage systems is treated at water treatment facility / other appropriate treatment facility?				No contaminated water was found.
10	Equipment oil and lubrication replacements are performed only in bunded maintenance area?				Not observed.
11	a. Oil interceptor provided for drainage discharging from maintenance area?			$\boxtimes$	Not required.
-	b. If yes, oil and grease removed regularly?			$\boxtimes$	
-	c. Collected by licenced collector?			$\boxtimes$	
12	Cargo Handling  a. Cargo Handling Guideline available and followed to minimise chance of accidental spillage when loading or unloading?			$\boxtimes$	Not required.
-	b. Materials and bulk cargo are properly packed?			$\boxtimes$	



	3. Air Quality				
	Description	Yes	No	N/A	Remarks
3.1	a. Valid Specified Process License for all specified process available?				Not required.
	b. SP License conditions / monitoring requirements met?			$\boxtimes$	
3.2	Odour a. Any odour detected?		$\boxtimes$		
0.2	a. Any odour dototto.				
	b. If yes, can the source be identified?			$\boxtimes$	
	c. Odorous materials are covered?			$\boxtimes$	
	d. If odour control system is installed, is it operating normally?				
3.3	All dusty materials are sprayed with water or covered by impervious sheeting prior to any loading, unloading or transfer operation?			$\boxtimes$	
3.4	Dust Monitoring  a. Monitoring Record available?			$\boxtimes$	Not required.
	b. Monitoring frequency met the requirement?			$\boxtimes$	
	c. Any exceedance?			$\boxtimes$	
	d. If yes, follow-up action taken?			$\boxtimes$	
3.5	Enclosures are provided around the main dust-generating activities?				
3.6	Open burning is avoided?	$\boxtimes$			



	3. Air Quality (continued)				
	Description	Yes	No	N/A	Remarks
3.7	Dark smoke emitted from chimney or powered plant is avoided?				There is no chimney installed onsite.
3.8	Vehicles and equipment are switched off while not in use?	$\boxtimes$			
3.9	Approval certificate issued by the Authority is available for furnace, oven or chimney consuming:			$\boxtimes$	
	<ul><li>a. &gt;25L of conventional liquid fuel per hour</li><li>b. &gt;35kg of conventional solid fuel per hour</li></ul>			$\boxtimes$	
	c. >1,150 MJ of any gaseous fuel per hour				
3.10	Approval from Authority is available for the use of liquid fuel with a viscosity point of ignition >30 centistokes or an equivalent viscosity?			$\boxtimes$	
3.11	Dust collected by any air pollution control equipment installed by tenants must be tested to ensure compliance for landfill disposal.			$\boxtimes$	
3.12	Approval from Authority for the use of controlled refrigerant?			$\boxtimes$	To be checked in the next audit.
	b. If yes, record of refrigeration equipment service available?			$\boxtimes$	To be checked in the next audit.
3.13	All air pollution control systems are properly maintained and function normally?	$\boxtimes$			
3.14	Only Ultra-Low Sulphur Diesel is used?	$\boxtimes$			



#### 4. Waste / Chemical Management **Description** Yes No N/A **Remarks Chemical Waste Producer Registration** The Tenant will provide details 4.1 $\boxtimes$ completed? about the registration. 4.2 Provision of sufficient waste disposal points/ $\boxtimes$ receptacles? $\boxtimes$ 4.3 Waste disposed of regularly and properly? $\boxtimes$ П 4.4 Sorting of materials on-site for reuse or disposal to designated outlet? Record of quantities of waste generated, $\boxtimes$ 4.5 recycled and disposed properly kept and easily retrieved for inspection? Sludge is collected by a licensed collector at $\boxtimes$ 4.6 regular intervals? Packaging of Chemical Waste $\boxtimes$ No chemical wastes were observed. a. Stored in suitable container? 4.7 b. Container properly closed or sealed? $\boxtimes$ No chemical wastes were observed. c. Spillage cleaned up immediately through $\Box$ $\boxtimes$ No chemical wastes were the use of an absorbent? observed. d. Approval obtained for capacity of $\Box$ $\boxtimes$ No chemical wastes were containers > 450L? observed. Labelling of Chemical Waste $\boxtimes$ No chemical wastes were observed. a. Label is securely attached, clean and 4.8 visible? b. Label is in proper dimension and $\Box$ $\Box$ $\boxtimes$ No chemical wastes were observed. bilingual? c. Information is accurate and sufficient? $\boxtimes$ No chemical wastes were observed.



#### 4. Waste / Chemical Management (continued) **Description** Yes No N/A Remarks Storage of Chemical Waste $\boxtimes$ 4.9 a. Proper "Chemical Waste" signs are displayed? b. Incompatible wastes separated by an $\boxtimes$ impermeable partition? c. Containers kept in receptacle of suitable $\Box$ $\boxtimes$ material and construction (if quantity <50L) or drip trays capable of storing 110% of the volume of largest (if quantity >50L)? d. Enclosed on 3 sides with no less than 2m $\boxtimes$ in height or height of tallest container or stack of containers? e. Containers with chemical waste are $\boxtimes$ properly stored and locked at designated area which is clean and dry? $\boxtimes$ f. Adequacy of area ventilation? g. Outdoors storage area should be $\boxtimes$ covered? П 4.10 Chemical wastes are collected by a $\boxtimes$ licensed chemical waste collector? (retention of trip ticket copies for 12 months) $\boxtimes$ Storage of Liquid Waste 4.11 a. Storage area floor/surface permeationproof? $\boxtimes$ b. Capacity of retention structure sufficient to accommodate contents of the largest container or 20% volume of waste in storage? $\boxtimes$ c. Walls or partitions of stacked container storage area constructed of impermeable material?



#### 5. Other Issues **Description** Yes No N/A **Remarks** Landfill Gas Hazard The lot is inside the LFG (within LFG Consultation Zone) Consultation Zone. Advice on the possible LFG hazards shall be 5.1 a. Workers and visitors alerted to possible provided to the Tenant. LGF hazards? $\boxtimes$ b. Smoking and open fires prohibited? $\boxtimes$ 5.2 Security lighting directed downward into the work areas to prevent glare to the surrounding receivers? $\boxtimes$ 5.3 Good housekeeping? Any areas within the lot to be used for recycling processes are concrete paved? $\boxtimes$ 5.5 Valid calibration certificate for any monitoring equipment? $\boxtimes$ There were no DGs stored on **Dangerous Goods** site. 5.6 a. Valid license for manufacturing / storing dangerous goods? b. Storage area in compliance with the $\boxtimes$ approved plan? c. Storage area(s) has been securely $\Box$ $\boxtimes$ locked? d. Total storage capacity in compliance with $\boxtimes$ the relevant statutory requirement? e. Proper Labelling? $\boxtimes$ $\boxtimes$ f. Dangerous goods properly packaged? $\Box$ Potential stagnant pools cleared and $\boxtimes$ mosquito breeding prevented?



#### **Action Items from This Audit**

No. Action Expected By

1. No critical issues were identified.

NIL.

Follow-up from Previous Audits

No. Follow-up from Previous Audit Dated [Month Year]

Status

1. NIL.

NIL.

## **Audit Summary and Sign-off**

The site was generally tidy.

	ET	IEC*	Tenant	Operator
Organisation	SMEC Asia Ltd	Scott Wilson Ltd	St. James	Serco Guardian JV
Signed By	Antony WONG	KK KWOK	Mr. Alex TAM	Morgan CHIU
Role	ET Leader	IEC Representative	Manager	Park Manager
Signature	Antmy	Chul	PP Asers Manag	3

Note: \* IEC to sign-off only for a joint ET+IEC Inspection



## **APPENDIX 7**

General EcoPark Checklists for the Reporting Quarter



#### **Audit Details**

Audit Month	August 2010				
Audit Date	30 Aug 2010	Time 09:00	Dam to 12noon		
Weather Conditions	Fine		Overcast	Rain	
Wind		☐ Light Breeze	☐ Strong Wind		
Temperature	<u>33 °C</u>				
Humidity	Low		High		,

#### **Action Items from This Audit**

#### ID ET Findings / Recommendations

### **Operator /Tenant Follow-up Action**

## Hong Kong Telford Envirotech Group Ltd

1. The lot was locked during the site visit and no Telford staff were present. The site was looked tidy when observed from outside.

 $\mathsf{NIL}$ 



## Hung Wai Wooden Board Company

2. No critical issues were identified.

NIL

#### Li Tong Group

3. No critical issues were identified.

NIL

#### Cosmos Star Holdings Co.

4. The lot was locked during the site visit and no Cosmos Star staff were present. No critical issues were observed.

NIL



#### **Other Areas**

5. No new observations

NIL



#### **Follow-up from Previous Audits**

## ID ET Findings / Recommendations

#### Hong Kong Telford Envirotech Group Ltd.

 Uncovered soil stockpile was found at Telford's lot in July 2010.



#### **Hung Wai Wooden Board Company**

- 2. A shelter was placed above the machines since June 2010 and no operation was observed during the site audit in July 2010.
- 3. Water dripping from the air conditioners during the site audit in July 2010.



 Stagnant water was found underneath the machines during the site audit in July 2010.



5. The perimeter drain was blocked.



#### **Operator/Tenant Follow-up Action**

No stockpile was found in this audit. (Closed)



No operation was undertaken during August 2010. Nevertheless, significant dust impact is not anticipated with the presence of the shelter. (Closed)

The water dripping was found to be collected. (Closed)



No stagnant water was found during this site audit. (Closed)







#### Follow-up from Previous Audits (continued)

#### **ID ET Findings / Recommendations**

#### **Operator/Tenant Follow-up Action**

#### **Hung Wai Wooden Board Company (continued)**

6. Sawdust was found near the machines inside Hung Wai's lot.



No sawdust was found during this site audit. (Closed)

#### Li Tong Group

7. Stockpiles of materials and wastes were observed during the site inspection in July 2010.



No stockpiles of materials or wastes were observed during the site inspection in August 2010. (Closed)



#### Other Areas

8. Muddy trail was found outside the lot of "P10".



Muddy trails were still observed outside the lot of "P10". SGJV was advised to liaise with the RE for cleaning the ground at the entrance of "P10". The contractor of "P10" should provide appropriate measures such as wheel-washing facilities. (Outstanding)





## **Observations and Sign-off**

Most of the outstanding issues of the previous audit in July 2010 were resolved and fewer issues were identified during the site visit in August 2010.

	ET	Operator
Organisation	SMEC Asia Ltd	Serco Guardian JV
Signed By	Antony WONG	Morgan CHIU
Role	ET Leader	Park Manager
Signature	Dutay	1



#### **Audit Details**

Date & Time	Date 29 Sep	tember 2010	Time <u>09:00am</u>	to 12noon
Weather Conditions		☐ Hazy	Overcast	Rain
Wind	Calm		☐ Strong Wind	
Temperature	32 °C			
Humidity		Medium	High	

NIL

NIL

#### **Action Items from This Audit**

ID ET Findings / Recommendations

## Li Tong Group

1. No critical issues were identified.



#### **Operator /Tenant Follow-up Action**

Cosmos Star Holdings Co.

2. The lot was locked during the site visit and no Cosmos Star staff were present. No critical issues were observed.



Other Areas

3. No new observations

NIL



#### **Follow-up from Previous Audits**

#### ID ET Findings / Recommendations

Hong Kong Telford Envirotech Group Ltd.

1. NIL.

NIL

Li Tong Group

2. NIL

NIL.

Cosmos Star Holdings Co.

3. NIL.

NIL.

#### **Other Areas**

4. Muddy trail was found outside the lot of "P10".



Muddy trails observed out the lot of "P10" in this audit were reduced compared those observed in last audit. SGJV was advised to remind the contractor of "P10" should further clean up the vehicular trails at the site entrance and provide wheel-washing. (Close)

**Operator/Tenant Follow-up Action** 



#### **Observations and Sign-off**

All the outstanding issues of the previous audit in August 2010 were resolved.

	ET	Operator
Organisation	SMEC Asia Ltd	Serco Guardian JV
Signed By	Antony WONG	Morgan CHIU
Role	ET Leader	Park Manager
Signature	Tutay	1



#### **Audit Details**

Date & Time	Date 27 Octo	ber 2010	Time 09:00am	to 12:30pm
<b>Weather Conditions</b>		☐ Hazy	Overcast	Rain
Wind	Calm	Light Breeze		
Temperature	21 °C			
Humidity		Medium	High	
\				

#### **Action Items from This Audit**

#### **ID ET Findings / Recommendations**

## Hong Kong Telford Envirotech Group Ltd.

1. Oily patch was found underneath a machine.



#### **Operator /Tenant Follow-up Action**

The Tenant was reminded to clear the patch as soon as possible and provide appropriate mitigation measures during equipment oil replacement in the future. In addition, the Tenant should provide a secondary containment such as drip tray underneath oil drums to prevent potential oil leakage.



## Cosmos Star Holdings Co.

 The lot was locked during the site visit and no Cosmos Star staff was present. No critical issues were observed.



# NIL

**Other Areas** 

3. No new observations

NIL



#### Follow-up from Previous Audits

ID ET Findings / Recommendations Operator/Tenant Follow-up Action Hong Kong Telford Envirotech Group Ltd. 1. NIL NIL Li Tong Group 2. NIL NIL Cosmos Star Holdings Co. 3. NIL Other Areas 4. NIL NIL

#### **Observations and Sign-off**

The lots were generally tidy.

	ET	IEC*	Operator
Organisation	SMEC Asia Ltd	Scott Wilson Ltd	Serco Guardian JV
Signed By	Antony WONG	KK KWOK	Morgan CHIU
Role	ET Leader	IEC Representative	Park Manager
Signature	Dutay	KOCul	73

Note: \* IEC to sign-off only for a joint ET+IEC Inspection