



PAUL Y. – CREC(HK) JOINT VENTURE

Contract No. CV/2004/13

**Temporary Construction Waste Sorting
Facilities at Tseung Kwan O Area 137 and
Tuen Mun Area 38**

**Quarterly EM&A Summary Report No. 14
(for the months February 09 to April 09 at
Tseung Kwan O Area 137)**

[5/2009]

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The information contained in this report is, to the best of our knowledge, correct at the time of printing. The interpretation and recommendations in the report are based on our experience, using reasonable professional skill and judgment, and based upon the information that was available to us. These interpretations and recommendations are not necessarily relevant to any aspect outside the restricted requirements of our brief. This report has been prepared for the sole and specific use of our client and ENSR Asia (HK) Ltd. accepts no responsibility for its use by others.

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Subject **Agreement No. CE 9/2005 (EP)
Construction Waste Sorting Facility at Tseung Kwan O Area 137 –
Quarterly Environmental Monitoring & Audit Report for February 2009 to April 2009**

We refer to the 14th Quarterly EM&A Report for February 2009 to April 2009 that we received through email on 14th May 2009 and are pleased to confirm we have no comment on the report.

Should you require further information, please feel free to contact us.

Best regards,



Joseph Poon
Independent Environmental Checker

JP/by

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EXECUTIVE SUMMARY

Introduction

This is the fourteenth Quarterly Environmental Monitoring and Audit (EM&A) Summary Report prepared by Maunsell Environmental Management Consultants Limited (MEMCL), which changed the name to ENSR Asia (HK) Ltd. (ENSR) on 1 May 2007, for the "Temporary Construction Waste Sorting Facility at Tseung Kwan O Area 137" (The Project). This report documents the findings of EM&A Works conducted during the impact period from February 2009 to April 2009.

The construction activities carried out from February 2009 to April 2009 were:

- Operation of Combined Reception and Exit Office (CREO);
- Operation of Construction Waste Sorting Facilities (CWSF) by mechanical sorting plant;
- Disposal of sorted waste to Landfill and Fill Bank;
- Maintenance work for haul road;
- Operation of sorting facility at Area B3; and
- Commencement of operation under S.A (2009-4-8)

Environmental Monitoring Works

EM&A Programme

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

24-hour TSP monitoring	13	sessions
1-hour TSP monitoring	39	sessions
Environmental Site Inspection	13	sessions

Air Quality

1-hr TSP Monitoring

All the monitoring data complied with the AL levels in the reporting quarter. The 1-hr TSP monitoring results remained at an acceptable level during the construction and operation of the CWSF.

24-hr TSP Monitoring

One action / limit level exceedance of 24-hour TSP monitoring was recorded at TKO2 on 17 April 2009. The exceedance was considered related to the high frequency vehicles movement.

Complaints, Non-compliance and Prosecutions

No complaint, non-compliance or prosecution was received in the reporting quarter.

1. INTRODUCTION

Scope of Report

- 1.1 This is the fourteenth Quarterly Environmental Monitoring and Audit (EM&A) Summary Report for the Temporary Construction Waste Sorting Facility at Tseung Kwan O Area 137 (the Project). This report presents a summary of the environmental monitoring and auditing works carried out by the ET for the Project for the period from February 2009 to April 2009.

Project Organization and Contacts of Key Management

- 1.2 The project organization is shown in Appendix A. The key personnel contact names and numbers are summarised in Table 1.1

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
CEDD	Engineer	Mr. H C Tang	2762 5602	2714 0113
IC(E) (<i>MateriaLab</i>)	IC(E)	Mr. Joseph Poon	2450 8238	2450 6138
Contractor (<i>Paul Y -CREC(HK)</i> <i>JV</i>)	Project Manager	Mr. Joe Au	9378 3331	2623 9426
	Site Agent	Mr. Y T Wong	9475 6376	--
ET (<i>ENSR</i>)	ET Leader	Mr. Y T Tang	3105 8537	2891 0305

Construction Programme

- 1.3 The construction phase under Contract CV/2004/13 – Temporary Construction Waste Sorting Facility at Tseung Kwan O Area 137 commenced on 12 November 2005. The activities during this reporting quarter included:
- Operation of Combined Reception and Exit Office (CREO);
 - Operation of Construction Waste Sorting Facilities (CWSF) by mechanical sorting plant;
 - Disposal of sorted waste to Landfill and Fill Bank;
 - Maintenance work for haul road;
 - Operation of sorting facility at Area B3;
 - Commencement of operation under S.A (2009-4-8)
- 1.4 The general layout plan of the Project sites showing the contract areas are shown in Figure 1.1.
- 1.5 The construction programme is provided in Appendix B.

2. ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

Monitoring Parameters

- 2.1 The EM&A Manual designated a monitoring station to monitor environmental impacts on air quality due to the Project. The monitoring location is depicted in Figure 2.1.
- 2.2 The EM&A Manual also required environmental site inspections for air quality, noise, water quality, chemical and waste management and landscape and visual.

Environmental Quality Performance Limits (Action/Limit Levels)

- 2.3 The environmental quality performance limits (i.e. Action/Limit Levels) were derived from the baseline monitoring results of the Fill Bank at Tseung Kwan O Area 137, and are given in Appendix C.

Environmental Mitigation Measures

- 2.4 Relevant environmental mitigation measures were stipulated in the Particular Specification and EP (No.: EP-134/2002/F) for the Contractor to adopt. A list of mitigation measures and their implementation statuses are given in Appendix D.

3. MONITORING RESULTS

Air Quality

- 3.1 Air quality monitoring, including 1-hr and 24-hr TSP, was conducted three times a week and once a week respectively, in accordance with the EM&A Manual.
- 3.2 The weather was generally dry during the reporting period. The monitoring data and trend of air quality for the reporting quarter are given in Appendix E. Major dust sources of the temporary CWSF were dump truck traffic, dumping and sorting activities inside the CWSF. Other dust sources were the dump truck traffic inside and outside of the Fill Bank.
- 3.3 One action / limit level exceedance of 24-hour TSP monitoring was recorded at TKO2 on 17 April 2009. The exceedance was considered related to the high frequency vehicles movement.
- 3.4 Table 3.1 presents the number of exceedances recorded in each month of the reporting quarter. The number of monitoring events included regular monitoring events and additional ones, if any.

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

Monitoring Parameter	Level of Exceedance	Month		
		Feb 09	Mar 09	Apr 09
1-hr TSP	No. of monitoring events	12	12	15
	Action	0	0	0
	Limit	0	0	0
	Total	0	0	0
24-hr TSP	No. of monitoring events	4	5	4
	Action	0	0	1
	Limit	0	0	
	Total	0	0	1

Environmental Site Inspection

- 3.5 There were 13 site inspections conducted in the reporting quarter to monitor the implementation of proper environmental pollution control and mitigation measures for the Project. The major concerns for the Project are air quality and waste management on site. Dust emission during dumping activities, loading/unloading activities, manual sorting of non-inert waste and dump truck traffic on the haul road were observed during site inspections. General refuse was observed without proper collection.
- 3.6 General refuse was observed accumulated along the roadside in Area B1 and inside u-channel in Area B2. Deposited silt was observed accumulated in u-channel and desilting pits along the haul road in Area B2.
- 3.7 The implementation status of environmental mitigation measures are given in Appendix D.
- 3.8 Major dust sources in the temporary CWSF would be the dumping activities, loading/unloading activities, manual sorting of non-inert waste and dump truck traffic inside the CWSF. Mitigation measures, including operation of wheel-washing facilities had been implemented, more water sprinklers were installed and water truck had been deployed to dampen the haul road.
- 3.9 Besides the afore-said issues, the Contractor was reminded to maintain the drainage systems regularly. It was recommended to clear the silt in desilting pit and trapezoidal channel regularly, arrange additional maintenance for the silt trap at the wheel washing bay and oil interceptor pump pit before and after rainstorms so as to ensure their maximum treatment capacities.
- 3.10 The Contractor had obtained the effluent discharge license on 13 November 2006.

Advice on Solid and Liquid Waste Management Status

- 3.11 There was disposal of sorted inert material, sorted non-inert material, non-inert C&D waste and chemical waste in the reporting quarter.
- 3.12 The Contractor was advised to provide drip trays to all chemicals containers and implement sufficient preventive measures, including placing tarpaulin sheets or drip tray on ground, during equipment maintenance works to avoid oil leakage on the ground. In the event of oil leakage, the Contractor should clean up the polluted soil and dispose of as chemical waste.

4. SUMMARY OF NON-COMPLIANCE (EXCEEDANCES) OF ENVIRONMENTAL QUALITY

Summary of Exceedances and Review of the Reasons for non-compliance

- 4.1 One action / limit level exceedance of 24-hour TSP monitoring was recorded at TKO2 on 17 April 2009. The exceedance was considered related to the high frequency vehicles movement.

5. ENVIRONMENTAL COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTION

- 5.1 No environmental complaints, notification of summons and prosecution was received in the reporting quarter.
- 5.2 Table 5.1 summarized the complaints, summons and successful prosecution received in the reporting period.

Table 5.1 Summary of Environmental Complaints and Prosecutions

	February 2009	March 2009	April 2009	Total
Complaints logged	0	0	0	0
Summons served	0	0	0	0
Successful Prosecution	0	0	0	0
Total	0	0	0	0

6. COMMENTS, RECOMMENDATIONS AND CONCLUSIONS

Comments on Mitigation Measures

Air Quality

- 6.1 The major dust sources were the dumping activities, loading/unloading activities, manual sorting of non-inert waste and dump truck traffic on the haul road. Wheel washing facilities had been provided and water truck had been deployed to dampen the haul road.
- 6.2 The Contractor was advised to operate mist spraying systems and automatic water sprinklers in the temporary CWSF.
- 6.3 All vehicles should be washed before leaving the site egress by provision, operation and maintenance of automatic wheel washing facilities.

Water Quality

- 6.4 Maintenance of the drainage system, including the trapezoidal channels, is required.
- 6.5 Remove the stagnant water or provide pesticide for the stagnant water in the desilting chambers.

Chemical and Waste Management

- 6.6 Remove waste materials from site regularly to avoid accumulation.
- 6.7 Plants should be properly maintained to prevent oil leakage.
- 6.8 Oil stains on ground should be removed as soon as possible and disposed of as chemical waste.
- 6.9 Handle and store chemical waste properly.
- 6.10 Provide and maintain sufficient drip trays for diesel drums, chemical containers, chemical waste storage drums and diesel operated generator.
- 6.11 Maintain good house keeping at works area.

Recommendations on EM&A Programme

- 6.12 The impact air quality monitoring programme confirmed that any air quality impact from the construction activities would be readily detected and timely actions could be taken to rectify any non-compliance.
- 6.13 The EM&A programme effectively monitored the environmental impacts from the construction activities and no particular recommendations were advised for the improvement of the programme.

Conclusion

- 6.14 Environmental monitoring of air quality (1-hr TSP and 24-hr TSP) for the Project was performed from February 2009 to April 2009. One action / limit level exceedance on 24-hr TSP was recorded at TKO2 on 17 April 2009 in the reporting quarter. The exceedances were considered related to high frequency of vehicles movement and no exceedance was recorded on 23 April 2009.
- 6.15 No complaint, prosecution or notification of summon was received in the reporting quarter.