Contract No. : DC/99/10

Upgrading of Siu Ho Wan Sewage Treatment Plant - Civil Works

Environmental Monitoring & Audit Monthly Monitoring Report, No.30

February 2004

THIS REPORT IS PREPARED BY : Envirotech Services Co. Shop 6, G/F, Casio Mansion, 209 Shaukeiwan Road, Hong Kong. Tel : 2560 8450 Fax : 2560 6553

EXECUTIVE SUMMARY

This is the thirty monthly EM&A Report for Contract No. DC/99/10- Upgrading of Siu Ho Wan Sewage Treatment Plant Civil Works, which records the results and findings of all EM&A work required in the EM&A Manual for the month of February 2004.

Environmental Monitoring and Inspection

There was no routine environmental monitoring required during the construction period in accordance with the EM&A Manual. Joint site inspection was conducted regularly on weekly basis to ensure the environmental mitigation measures were performed timely and properly and the environmental requirement of the contract and environmental legislation in Hong Kong are complied. Ad hoc site inspections will be carried out if environmental problems are identified or upon receipt of complaints.

Status of Implementation of Mitigation Measures

The works carried out in February were mainly erection of scaffold and external finish work at the Admin Building and the Centrifuge Building. The corresponding mitigation measures were implemented such as water hose has been provided for washing wheels in lieu of wheel washing bay; water truck were provided for watering the dusty areas and perimeter channels were provided to intercept the surface runoff. The implementation status of the mitigation measures was overall satisfactory although minor deficiencies were observed. However, the deficiencies were not likely causing any immediate environmental problem and would be rectified by the Contractor in the short term.

Status of Licences and Permits

Water discharge license and registration of chemical waste producer were valid in the reporting period.

Environmental Complaints and Legislation

No complaint was received during the reporting period and thus no action to be taken. There was also no notification of summonses and successful prosecutions.

Future Key Issues

Owing to wet season is approaching, the Contractor was advised to clear drains and channels to prevent flooding and surround the gullies by sandbags to prevent sand from depositing into public drain. On the other hand, the Contractor should increase the extent of watering on the access roads to avoid dust emission while wind was blowing and vehicles were travelling there during dry weather days. Moreover, the Contractor should cover the stockpiled sand with tarpaulin sheet when it not in use. The Contractor should provide proper storage for the construction debris and waste timber and arrange prompt disposal of them to maintain the site in a tidy manner. The Contractor must continue implement appropriate environmental mitigation in accordance with the contract requirement and the waste management plan.

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1 ENVIRONMENTAL STATUS

1.1 Site Environmental Monitoring and Audit

The EM&A Manual requires no routine environmental monitoring for air quality, noise level and water quality during construction phase.

The EM&A Manual stated that ET leader should carry out site audit at least once per week to ensure that all mitigation measures were implemented timely and properly, and the contract requirement and environmental laws are fully complied. Ad hoc site inspection will be carried out if any non-compliances are identified or upon receipt of an environmental complaint. Apart from the regular site audit, the ET Leader will review the progress of the works with respect to pollution control and anticipated environmental issues and check the status of solid and liquid waste management with reference to the waste management plan.

The ET Leader also reviews the proposals for mitigation measures and the relevant method statement submitted by the Contractor in respect of environmental protection.

1.2 Summary of Non-compliances

Four regular site audits were conducted in the reporting month. It was observed that some mitigation measures had not been fully implemented or the extent was insufficient. They included:

- It was observed that the perimeter channel near CSCEHKL's office was filled the weeds and the sand. The Contractor should clear the channel to prevent flooding during wet season.
- It was spotted that waste timbers were not properly placed in the garbage container. The Contractor was reminded that any waste timber should be first placed into the garbage container and stored in a tidy manner in a storage place only if the container is full.

1.3 Summary of complaint

No complaint was received during the monitoring period and thus no action to be taken. A detailed summary of complaint was shown in Appendix A.

1.4 Breach of Environmental Regulation

In this reporting period, there was no conviction for breach of environmental legislation and regulations and thus no action was taken.

1.5 Solid and Liquid Waste Management Status

The status of management of solid and liquid waste in accordance with the waste management plan is presented in Table 1.1 below:

Management of Solid and Liquid Waste	Status	
Disposal of Liquid Waste	-Sewage generated by the site office was discharged into adjacent Siu Ho Wan Sewage Treatment Plant.	
	-Surface runoff and groundwater were treated by sand bags or de-silting tank before discharging into nearby storm drains, if any. Some surface runoff infiltrated through the sediment.	
	-Muddy effluent generated from wheel washing will be silt filtered before discharging into nearby storm drains.	
Disposal of Construction & Demolition Material - Public Fill - Construction & Demolition (C&D) Waste	 No public fill material was disposed. No C&D waste was disposed. 	
Disposal of Hazarding Waste		
- Chemical Waste	-Chemical waste was being stored in the chemical containers and housed in a proper place.	
	-The Contractor had appointed Wing Tat Transportation Company (waste collector) to disposed of spent lube oil (~200L) at Dunwell Ind. (Holding) Ltd (Reception point).	
Avoidance/ Minimization of Waste		
- Reuse of Material	-Excavated material had been used for backfilling.	
- Recycle of Material	-Waste material was segregated into different categories.	
	-Separated recycling bins were provided for collection of aluminum cans, plastic bottles and waste paper. The Contractor has delivered recycled materials (Plastic bottles (3 pcs), Waste paper (2kg) & Aluminum cans (3 pcs) to the collector on 27 February 2004.	
- Disposal of General Refuse	-The refuse bins and garbage container was provided.	

Table 1.1Status of Management of Solid and Liquid Waste

1.6 Status of License and Permit

All permits / licenses / notification validated in the monitoring period are summarised in Table 1.2.

Description	Permit/ Reference	From	То	Section/PME	Status
	No.				
Application for	TS20011042-0	Whole	period	Construction Site	Valid
chemical waste	01		_		
producer registration					
Notification of	TS20010805-0	Whole	period	Construction Site	Valid
const. Work under	01	•			
APCO (CONST					
DUST)					
Water Discharge	EP742/972/00	19/6/02	30/6/07	Discharge point	Valid
License@	31261				

Table 1.2Environmental Licenses and Permits

^(a) No water was sampled for analysis since the Contractor had stopped discharging construction effluent at the discharge point.

2 ENVIRONMENTAL ISSUES AND ACTIONS

2.1 Review of Follow-up Actions for Non-compliances

The following actions have been taken in response to the deficiencies:

- The Contractor will clear the channel before coming of wet season.
- The Contractor agreed to store them properly before disposing them at landfill site.

2.2 Status of Implementation of Mitigation Measures

Four regular site audits were conducted in the reporting month to check the implementation status of the mitigation measures recommended in the Environmental Permit, the EIA Report, the EM&A Manual and the contract document. The implementation status of the mitigation measures was detailed in the site inspection records, which were kept by the Contractor on site and available for inspection. The implementation status of the mitigation measures was overall satisfactory. Particular implemented mitigation measures are described as follows:

- The wheel washing bay at the site exit has been demolished. Water truck and water hoses were provided on site to clean the wheels of vehicles and water the access road to suppress the dust emission.
- Chemical waste containers and chemical waste drip tray were provided on site.
- A portable toilet, refuse bins and refuse container were provided on site.
- Construction waste was segregated. Aluminum cans, plastic bottles and waste paper were separately collected and delivered to the collector for recycling.
- Perimeter channels were provided at the site boundary to intercept the surface runoff.

3 FUTURE KEY ISSUES

Erection of bamboo scaffold and external finish work at the Centrifuge Building and installation of handrailing will proceed next month. The potential environmental impact and the corresponding environmental mitigation measures are summarised in Table 3.1.

Table 3.1Construction Activities and Their Corresponding EnvironmentalMitigation Measures in the Coming Month

Construction Activities	Environmenta	Environmental Mitigation
	l Impact	Measures
Erection of bamboo scaffold and	Dust Impact &	Water the site areas more
external finish work at the Centrifuge Building and installation of handrailing will proceed next month.		frequently especially on dry weather days.
		Cover the exposed surfaces with tarpaulin sheets.
		The wheel washing bay will not be re-constructed in short term. The Contractor provided water hose to clean the wheels of vehicles.
		To treat the muddy water in de-silting facilities before discharging into nearby storm drains.
General activities	Waste oil & Construction materials	Properly handle and treat the construction waste, municipal waste and chemical waste.
		Dispose of municipal waste and waste engine oil by licensed collector

4 CONCLUSIONS

Four regular site audits were conducted in the reporting month to check the implementation status of the mitigation measures and any non-compliance with the environmental requirements.

The implementation status of the mitigation measures was overall satisfactory although minor deficiencies were observed. The deficiencies were not likely causing any immediate environmental problem. Overall, the environmental condition of the site was satisfactory.

The Contractor should storage the solid waste including the useless timer and dispose of them properly to maintain the site tidiness and prevent attraction of pest and mosquitoes. Moreover, the Contractor should maintain the drains and channel in good condition to prevent flooding.

No complaint was received during the reporting period. There was also no notification of summonses and successful prosecutions.

Envirotech Services Co.

Summary of Complaints

<u>Appendix A</u>

Environmental Parameters	Cumulative no. Brought forward	No. of complaint February 2004	Overall total
Noise	0	0	0
Air	0	0	0
Water	0	0	0
Waste	0	0	0
Total	0	0	0

Details of Complaints

Date	Complainant	Detail	Action taken

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Outstanding Issues / Deficiencies	Action taken
• It was observed that the perimeter channel near CSCEHKL's office was filled the weeds and the sand. The Contractor should clear the channel to prevent flooding during wet season.	before coming of wet season.
• It was spotted that waste timbers were not properly placed in the garbage container. The Contractor was reminded that any waste timber should be first placed into the garbage container and stored in a tidy manner in a storage place only if the container is full.	properly before disposing them at landfill site.

Site Audit Schedule for March 2004

<u>Appendix C</u>

5 March 2004	12 March 2004	19 March 2004	26 March 2004
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Appendix D Waste Disposal Record & Licenses Records

To be submitted in final report.