


ASB Biodiesel (Hong Kong) Limited

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

Quarterly EM&A Summary Report

March 2012 to May 2012

(Version 1.0)

Certified By 
(Environmental Team Leader)

REMARKS:

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

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

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<i>To:</i>	Cinotech	<i>Date:</i>	7 June 2012
<i>Attn:</i>	Ms. Ivy Tam / Ms. Betty Choi	<i>Fax:</i>	3107 1388
<i>From:</i>	Mr. Mark Cheung	<i>Ref:</i>	D1067/G02229
<i>Job No.</i>	D1067	<i>Total Pages:</i>	1

**SUBJECT: Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate
Quarterly EM&A Summary Report (March 2012 to May 2012)**

Dear Sir / Madam,

We refer to your submission of the Quarterly EM&A Summary Report (March 2012 to May 2012) via email dated 7 June 2012.

We write to advise that we have no comment on the captioned report.

Regards,

Mark Cheung
Independent Environmental Checker

KTC/gk



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EXECUTIVE SUMMARY

Introduction

1. This is the 12th Quarterly Environmental Monitoring and Audit (EM&A) Summary Report prepared by Cinotech Consultants Limited for Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate". This report documents the findings of EM&A Works conducted from March 2012 to May 2012.
2. The major site activities undertaken in the reporting quarter included:
 - General site cleaning and tidying
 - Zone 1A Administration Building – RC superstructure construction works
 - Zone 1A Administration Building – Transformer Room finishing works
 - Zone 1A Administration Building – Finishing works
 - Zone 1A Administration Building – MEK room metal works
 - Zone 1B Processing Building – Cladding system installation works
 - Zone 1B Fat Preparation and Steam Boiler Room Building – RC superstructure works
 - Zone 1B Fat Preparation and Steam Boiler Room Building – Equipment Installation works
 - Zone 1B Fat Preparation and Steam Boiler Room Building – Finishing works
 - Zone 2A Tank Farm – RC footing concreting works
 - Zone 2A Tank Farm – Steel tank erection works
 - Zone 2B-2E Tank Farm – Bund wall rectification works
 - WWTP – RC Footing concreting works
 - WWTP – RC superstructure preparation works
 - WWTP – RC superstructure construction works
 - WWTP – RC tanks construction works
 - Jetty – Temporary piling works
 - Jetty – Temporary platform erection works
 - Jetty – Deck precast works
 - Jetty – Temporary pile casing erection works
 - Building Services – P&D U/G pipe cast-in works
 - Building Services – Fire Service U/G pipe cast-in works
 - Building Services – Cable duct cast-in works
 - Building Services – Pressure Test works

Environmental Monitoring and Audit Works

3. Environmental monitoring and audit works for the Project were performed regularly as stipulated in the EM&A Manual and the results were checked and reviewed. Site audits were conducted once per month. The implementation of the environmental mitigation measures and environmental complaint handling procedures were also checked.

Environmental Licenses and Permits

4. Licenses/Permits granted to the Project include the Environmental Permit (EP) for the Project. Environmental Permits No. EP-319/2009 and EP-319/2009/A were issued on 11 March 2009 and 7 April 2009 respectively. The Contractor has applied for the Registration of Chemical Waste Producer (WPN-5113-839-C1186-15), Construction Noise Permits (CNPs), Wastewater Discharge License (WT00004508-2009), Notification of Works under APCO (337009) and Waste Discharge Account (7013917). The CNPs were renewed on monthly basis. In total five CNPs were obtained during the reporting quarter (GW-RE0212-12, GW-RE0282-12, GW-RE0284-12, GW-RE0376-12 and GW-RE0377-12).

Key Information in the Reporting Quarter

5. Summary of key information in this reporting quarter is tabulated in **Table I**.

Table I Summary Table for Key Information in the Reporting Quarter

Event	Event Details		Action Taken	Status	Remark
	Number	Nature			
Complaint received	0	---	N/A	N/A	---
Changes to the assumptions and key construction / operation activities recorded	0	---	N/A	N/A	---
Status of submissions under EP	3	Monthly EM&A Report for March, April and May 2012	Submitted to EPD on 12 March, 18 April and 15 May 2012 respectively	Verified by IEC	---
Notifications of any summons & prosecutions	0	---	N/A	N/A	---

Future Key Issues

6. Major site activities for the coming two months will include:
- General site cleaning and tidying
 - Administration Building – Steel and metal works at MEK Room
 - Administration Building – Installation of roof waterproofing system works
 - Administration Building – Finishing works
 - Processing Building – Cladding system installation works
 - Fat Preparation Building – Finishing works
 - Fat Preparation Building and Boiler Room – Roof waterproofing system works
 - Fat Preparation Building and Boiler Room – Structural steel works
 - Tank Farm 2A – Footing and bund wall construction works
 - Tank Farm 2A – Tank erection works
 - Grease Trap Waste Screening Room (GTWSR) – Foundation construction works
 - Grease Trap Waste Screening Room (GTWSR) – Superstructure construction works
 - Tank Farm 2B-2E – Bund wall construction works

- Tank Farm 2B-2E – Tank erection works
 - WWTP – Structural construction works
 - WWTP – IC Reactor erection works
 - WWTP – Water proofing system installation works
 - Jetty – Temporary platform construction works
 - Jetty – Bore pile installation works
 - Pipe Bridge – Pipe support construction works and pipe bridge erection works
 - External – Fence wall construction works
 - Building Services – Fire services works
 - Building Services – MVAC works
 - Building Services – Electrical works
 - Building Services – P&D works
7. The future environmental concerns are air quality, waste management, water quality and surface runoff from construction works.

1 INTRODUCTION

Background

- 1.1 Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate is a Designated Project (hereafter referred to as “the Project”) under the Environmental Impact Assessment Ordinance (Cap. 449). A study of environmental impact assessment (EIA) was undertaken to consider the key issues of air quality, noise, water quality, ecological and identify possible mitigation measures associated with the works. An EIA Report was approved by the Environmental Protection Department (EPD) on 26 February 2009.
- 1.2 The project is to construct and operate a 100,000 tonnes per annum biodiesel plant at Tseung Kwan O Industrial Estate. The plant will use a multi-feedstock which consists of waste cooking oil (WCO), oil and grease recovered from grease trap waste (GTW), Palm Fatty Acid Distillate (PFAD) and animal fats. The proposed biodiesel plant not only offers a convenient recycling outlet for GTW and WCO but also converts the oil and grease recovered from these wastes into useful products. The Project also offers a cleaner alternative to diesel fuel to the Hong Kong market. The main processes include the followings:-
- Construction of feedstock reception and storage facilities, and offices;
 - Construction of a grease trap waste pre-treatment facility (with a designated treatment capacity of about 200,000 tonnes per annum);
 - Construction of a wastewater treatment plant (with a designed treatment capacity of about 170,000 m³ per annum);
 - Installation of biodiesel production and glycerine purification system;
 - Construction of product storage and ancillary facilities;
 - Pretreatment of grease trap waste;
 - Treatment of wastewater generated from feedstock pre-treatment and glycerine dewatering process, and filtrates from dewatering process of sludge treatment;
 - Transesterification of feedstock with alcohol-catalyst; and
 - Purification of biodiesel.
- 1.3 The general layout of the Project is shown in **Figure 1.1**.
- 1.4 An Environmental Permit (EP) No. EP-319/2009 and EP-319/2009/A was issued on 11 March 2009 and 7 April 2009 respectively for Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate to ASB Biodiesel (Hong Kong) Limited as the Permit Holder.
- 1.5 Cinotech Consultants Limited was commissioned by the Contractor to undertake the Environmental Monitoring and Audit (EM&A) works for the Project. This is the 12th Quarterly EM&A Summary Report summarizing the EM&A works for the Project in from March 2012 to May 2012.

Project Organizations

- 1.6 Different parties with different levels of involvement in the project organization include:
- Project Proponent – ASB Biodiesel (Hong Kong) Limited
 - Project Manager – AECOM
 - Contractor – China Harbour Engineering Company Limited (CHEC)
 - Environmental Team (ET) – Cinotech Consultants Limited
 - Independent Environmental Checker (IEC) – Mannings (Asia) Consultants Ltd.
- 1.7 The responsibilities of respective parties are detailed in Section 1.10 of the Final EM&A Manual of the Project. The contact details of the project organisation are shown in **Appendix A**

Construction Programme

- 1.8 The construction programme is presented in **Appendix B**. The site activities undertaken in the reporting quarter were:
- General site cleaning and tidying
 - Zone 1A Administration Building – RC superstructure construction works
 - Zone 1A Administration Building – Transformer Room finishing works
 - Zone 1A Administration Building – Finishing works
 - Zone 1A Administration Building – MEK room metal works
 - Zone 1B Processing Building – Cladding system installation works
 - Zone 1B Fat Preparation and Steam Boiler Room Building – RC superstructure works
 - Zone 1B Fat Preparation and Steam Boiler Room Building – Equipment Installation works
 - Zone 1B Fat Preparation and Steam Boiler Room Building – Finishing works
 - Zone 2A Tank Farm – RC footing concreting works
 - Zone 2A Tank Farm – Steel tank erection works
 - Zone 2B-2E Tank Farm – Bund wall rectification works
 - WWTP – RC Footing concreting works
 - WWTP – RC superstructure preparation works
 - WWTP – RC superstructure construction works
 - WWTP – RC tanks construction works
 - Jetty – Temporary piling works
 - Jetty – Temporary platform erection works
 - Jetty – Deck precast works
 - Jetty – Temporary pile casing erection works
 - Building Services – P&D U/G pipe cast-in works
 - Building Services – Fire Service U/G pipe cast-in works
 - Building Services – Cable duct cast-in works
 - Building Services – Pressure Test works

Summary of EM&A Requirements

1.9 The EM&A requirements are described in the following sections, including:

- Environmental mitigation measures, as recommended in the project EIA study final report; and
- Environmental requirements in contract documents.

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

2 ENVIRONMENTAL AUDIT

Site Audits

- 2.1 Site audit was carried out by ET on monthly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site audits are attached in **Appendix C**.
- 2.2 Site audits were conducted on 14th March, 24th April and 22nd May 2012 by ET in the reporting quarter. No non-compliance was observed during the site audits. The observations and recommendations made during the audit sessions are summarized in **Table II**.

Table II Observations and Recommendations of Site Audit

Parameters	Date	Observations and Recommendations	Follow-up
Water Quality	14/03/2012	Ponding water should be cleared or larvicidal oil should be added to eliminate mosquito breeding ground.	Follow up action was taken by the Contractor.
	22/05/2012	Ponding water should be cleared or added with larvicidal oil.	Follow up action was taken by the Contractor.
Waste/Chemical Management	14/03/2012	Drip trays should be provided under chemical containers to prevent leakage and ponding water in drip tray should be removed.	Follow up action was taken by the Contractor.
	14/03/2012	Leaked paint should be cleaned.	Follow up action was taken by the Contractor.
	24/04/2012	Drip tray should be provided to store chemical containers.	Follow up action was taken by the Contractor.
	24/04/2012	Contaminated soil should be removed.	Follow up action was taken by the Contractor.
Air Quality	22/05/2012	Stockpile should be covered with tarpaulin.	Follow up action was taken by the Contractor.
	22/05/2012	The wheels of vehicles moving in and out of the site should be sprayed with water more thoroughly.	Follow up action was taken by the Contractor.

Status of Environmental Licensing and Permitting

- 2.3 All permits/licenses obtained for the Project are summarized in **Appendix D**

Implementation Status of Environmental Mitigation Measures

- 2.4 According to the EIA Study Report, Environmental Permit and the EM&A Manual of the Project, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An updated summary of the EMIS is provided in **Appendix E**.

Summary of Complaint and Prosecution

- 2.5 No environmental related complaint, prosecution or notification of summons was received in the reporting quarter.
- 2.6 There was no environmental complaint, prosecution or notification of summons received since the Project commencement. The Complaint Log is attached in **Appendix F**.

3 CONCLUSIONS AND RECOMMENDATIONS

Key Issues for the Coming Months

3.1 Key issues to be considered in the coming quarter include:

- Noise from operation of the equipment and machinery on-site;
- Effluent discharge generated from surface runoff;
- Dust generated from excavation works and stockpile of dusty materials;
- Maintenance of de-silting facilities and drainage system, such as U-channels;
- Storage of chemicals/fuel and chemical waste/waste oil on site;
- Accumulation of stagnant water in the site areas;
- Accumulation of C&D waste and general waste on site; and
- Suspended mud, sediment and potential leakage of bentonite slurry from marine piling work for jetty construction.

3.2 Since March, temporary piles were constructed in the jetty area and temporary pile casing were erected. Jetty deck precast work was carried out on land. During the site inspection, silt curtain was erected as a mitigation measure. Bore piles will be installed in the coming month. Bentonite slurry will be injected and the process will be closely monitored to prevent leakage into the water.

Conclusions

3.3 Environmental audit works were conducted in the reporting quarter. Site inspections were conducted on monthly basis. The results were reviewed and checked.

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

Recommendations

3.5 According to the environmental audit performed in the reporting quarter, the following recommendations were made:

Water Impact

- To identify any wastewater discharges from site.
- To ensure proper maintenance for de-silting facilities.
- To clear the silt and sediment in the sedimentation tanks.
- To review the capacity of de-silting facilities for discharge.
- To divert all the water generated from construction site to de-silting facilities with enough handling capacity before discharge.
- To avoid accumulation of stagnant and ponding water on site.
- To set up silt curtain at marine piling area.
- To check integrity of bore pile casing to prevent leakage.

Dust Impact

- To remove fugitive dusty material on the haul road periodically.
- Excavated dusty materials or stockpile of dusty materials should be covered by impervious sheeting, or sprayed with water so as to maintain entire surface wet.

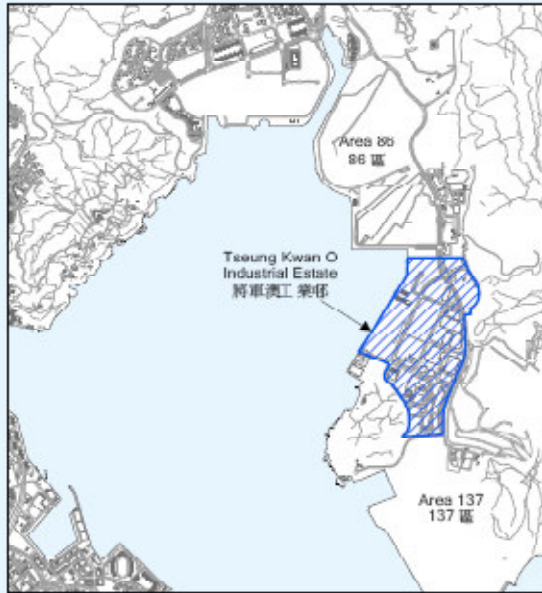
Noise Impact

- To space out noisy equipment and position as far away as possible from sensitive receivers.
- To inspect the noise sources inside the site.

Waste / Chemical Management

- To provide proper rubbish bins / skips for waste collection.
- To provide proper storage area for oil container on site.
- To avoid and check for any accumulation of waste materials or rubbish on site.
- To avoid any discharge or accidental spillage of chemical waste or oil directly from the equipment.

FIGURES



Key 圖例

 Proposed Site



Meters 米

0 100 200 400



Title Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

Site Layout Plan

Scale

N.T.S

Project

No. MA9021

Date

Jun-09

Figure

1.1

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**APPENDIX A
CONTACT DETAILS OF THE PROJECT
ORGANISATION**

APPENDIX A – Contact Details of the Project Organisation

Party	Role	Name	Position	Phone No.	Fax No.
ASB	Project Proponent	Ms. Sylvia Har	Senior Plant Engineer	9479 0949	3741 1661
Cinotech	Environmental Team	Dr. HF Chan	ET Leader	2151 2088	3107 1388
		Ms. Ivy Tam	Project Coordinator	2151 2090	
		Ms. Betty Choi	Audit Team Leader	2151 2072	
Mannings	Independent Environmental Checker	Mr. Mark Cheung	Independent Environmental Checker	3168 2028	3168 2022
		Mr. Gavin Kwok	Assistant to Independent Environmental Checker	3168 2028	
AECOM	Project Manager	Mr. Matthew Lau	Construction Manager	9363 5586	N/A
CHEC	Contractor	Mr. Peter Chung	Project Manager	9471 2438	2623 9226
		Mr. Anson Wong	Safety and Environmental Officer	9656 3837	
		Mr. Simon Li	Environmental Supervisor (Ass. Planning Engineer)	6152 7867	

APPENDIX B
CONSTRUCTION PROGRAMME

Activity ID	Activity Name	BL Start	BL Finish	Current Duration	Current Start	Current Finish	% Complete	Delay from Initial	Total Float	2012			
										May	Jun	Jul	Aug
C270MC-3M-Rolling Programme Ver.1.1 (250512)		14-Oct-11	08-Jun-13	674	14-Oct-11 A	17-Aug-13		-70	-70				
Key Dates		14-Oct-11	08-Jun-13	674	14-Oct-11 A	17-Aug-13		-70	-70				
A15600	Contract Award	14-Oct-11		0	14-Oct-11 A		100%	0					
Contract Period		04-Nov-11	12-Dec-12	475	04-Nov-11	20-Feb-13		-70	-70				
A15700	Date of Commencement of the Works	04-Nov-11		0	04-Nov-11		100%	0					
A15900	Date of Completion of the Works		12-Dec-12	0		20-Feb-13*	0%	-70	-70				
Maintenance Period		04-Jan-13	08-Jun-13	162	09-Mar-13	17-Aug-13		-70	-70				
A16400	Granting of DG License	15-Feb-13		0	12-May-13*		0%	-86	-86				
A16500	Commence T&C	04-Jan-13		0	09-Mar-13*		0%	-64	-64				
A16600	Complete T&C		08-Jun-13	0		17-Aug-13*	0%	-70	-70				
Milestones		04-Dec-11	04-Oct-12	118	27-Apr-12	23-Aug-12		42	289				
Remaining Construction Works		22-Dec-11	04-Oct-12	338	06-Feb-12	08-Jan-13		-97	-68				
Major Equipment and Material Procurement and Delivery				180	01-Mar-12	27-Aug-12			0				
P10000	Lift Procurement			180	01-Mar-12	27-Aug-12	47.22%		0				
1A - Administration Building		26-Feb-12	19-Jul-12	196	04-Apr-12	16-Oct-12		-89	-3				
Administration Building Structural and Builder's Work		26-Feb-12	10-May-12	98	04-Apr-12	11-Jul-12		-61	24				
A17040	AB-Steel and Metal Works at MEK Room	26-Feb-12	26-Mar-12	51	06-Apr-12	27-May-12	92%	-61	-62				
A17410	AB-Installation of windows, louvers and doors 1st stage	27-Mar-12	15-Apr-12	20	27-May-12	16-Jun-12	0%	-61	19				
A17420	AB-Installation of windows, louvers and doors 2nd stage	16-Apr-12	10-May-12	25	16-Jun-12	11-Jul-12	0%	-61	22				
A17430	AB-ABWF works excluding windows, louvers & doors	27-Mar-12	10-May-12	80	04-Apr-12	23-Jun-12	40%	-43	42				
A17440	AB-Installation of roof waterproofing system works	26-Feb-12	26-Mar-12	30	25-May-12	23-Jun-12	0%	-89	-89				
AB-Electrical		26-Feb-12	04-Jul-12	130	25-May-12	01-Oct-12		-89	-89				
A17130	AB-BS Cable laying works(Electrical) 1st stage	26-Feb-12	26-Mar-12	30	25-May-12	23-Jun-12	0%	-89	-89				
A17140	AB-BS Cable laying works(Electrical) 2nd stage	27-Mar-12	25-Apr-12	30	24-Jun-12	23-Jul-12	0%	-89	-89				
A17160	AB-BS Installation of switch board and cable termination works in Switch Rooms	11-Apr-12	20-May-12	40	09-Jul-12	17-Aug-12	0%	-89	-89				
A17190	AB-BS Lighting installation works	21-May-12	19-Jun-12	30	18-Aug-12	16-Sep-12	0%	-89	-89				
A17200	AB-Installation of switch board and cable termination works in Main Switch Room	11-Apr-12	20-May-12	40	09-Jul-12	17-Aug-12	0%	-89	-89				
A17210	AB-Installation of Generators, Day Tanks and associated equipment & pipe works	21-May-12	04-Jul-12	45	18-Aug-12	01-Oct-12	0%	-89	-89				
AB-Fire Services		26-Feb-12	20-May-12	85	25-May-12	17-Aug-12		-89	57				
A17170	AB-BS Piping works(Fire Services) 1st stage	26-Feb-12	31-Mar-12	35	25-May-12	28-Jun-12	0%	-89	-89				
A17180	AB-BS Piping works(Fire Services) 2nd stage	01-Apr-12	05-May-12	35	29-Jun-12	02-Aug-12	0%	-89	-59				
A17185	AB-Control Room and Pump Room FS equipment installation and associated pipe works	21-Apr-12	20-May-12	30	19-Jul-12	17-Aug-12	0%	-89	57				
AB-Plumbing and Drainage		26-Feb-12	19-Jul-12	145	25-May-12	16-Oct-12		-89	-83				
A17110	AB-BS Piping works (P&D) 1st stage	26-Feb-12	05-Apr-12	40	25-May-12	03-Jul-12	0%	-89	-89				
A17120	AB-BS Piping works(P&D) 2nd stage	06-Apr-12	20-May-12	45	04-Jul-12	17-Aug-12	0%	-89	-89				
A17155	AB-Installation of sanitary fittings	21-May-12	19-Jul-12	60	18-Aug-12	16-Oct-12	0%	-89	-83				
AB-MVAC		26-Feb-12	05-May-12	92	12-Apr-12	12-Jul-12		-68	-68				
A17150	AB-BS Installation of piping and ducting works (MVAC)	26-Feb-12	05-May-12	92	12-Apr-12	12-Jul-12	30%	-68	-68				
1B - Process Building		03-Jan-12	26-Jun-12	284	06-Feb-12	15-Nov-12		-142	-14				
Processing Building Structural and Builder's Work		03-Jan-12	04-Mar-12	116	06-Feb-12	31-May-12		-88	-88				
A18110	PB-Cladding wall for Processing Building	03-Jan-12	02-Feb-12	115	06-Feb-12	30-May-12	60%	-118	-118				
A18120	PB-Cladding roof for Processing Building	03-Feb-12	04-Mar-12	57	05-Apr-12	31-May-12	30%	-88	-88				
PB-Plumbing and Drainage		05-Mar-12	02-Jun-12	90	01-Jun-12	29-Aug-12		-88	-88				
A18010	PB-BS Piping works(P&D) 1st stage	05-Mar-12	18-Apr-12	45	01-Jun-12	15-Jul-12	0%	-88	-88				
A18020	PB-BS Piping works(P&D) 2nd stage	19-Apr-12	02-Jun-12	45	16-Jul-12	29-Aug-12	0%	-88	-88				
PB-Electrical		05-Mar-12	02-Jun-12	90	01-Jun-12	29-Aug-12		-88	-88				

BL
 Actual Work
 Remaining Work
 Critical Remaining Work
 Baseline Milestone

◆ Milestone
▶ Summary

Proposed Bio-Diesel Plant at T.K.O. Lot 39 Main Contract for All Remaining Works

3 Month Rolling Programme

for Bi-weekly Report (25 May 2012)

Date	Revision	Checked	Approved
11-May-12	Bi-weekly report update		
25-May-12	Bi-weekly report update		

Activity ID	Activity Name	BL Start	BL Finish	Current Duration	Current Start	Current Finish	% Complete	Delay from Initial	Total Float	2012				
										May	Jun	Jul	Aug	
A18030	PB-Cable laying works(Electrical) 1st stage	05-Mar-12	18-Apr-12	45	01-Jun-12	15-Jul-12	0%	-88	-88					
A18040	PB-Cable laying works(Electrical) 2nd stage	19-Apr-12	02-Jun-12	45	16-Jul-12	29-Aug-12	0%	-88	-88					
PB-MVAC														
A18060	PB-BS Installation of piping and Ducting Works (MVAC)	05-Mar-12	02-Jun-12	90	01-Jun-12	29-Aug-12	0%	-88	-88					
PB-Fire Services														
A18070	PB-BS piping works (Fire Services) 1st stage	05-Mar-12	18-Apr-12	45	01-Jun-12	15-Jul-12	0%	-88	-88					
A18080	PB-BS piping works (Fire Services) 2nd stage	19-Apr-12	02-Jun-12	45	16-Jul-12	29-Aug-12	0%	-88	-88					
PB-Processing Works														
A17900	PB-BDI Pipe insulation, Process Electrical & Instrumentation Works	03-Jan-12	26-Jun-12	90	18-Aug-12	15-Nov-12	0%	-142	-14					
1B - Fat Preparation Building														
Fat Preparation Structural and Builder's Work														
A18600	FP-Fat Preparation Steel Works	21-Jan-12	19-Feb-12	30	25-May-12	24-Jun-12	0%	-125	-75					
A18700	FP-Cooling Tower Installation	04-Feb-12	05-Apr-12	62	08-Jun-12	08-Aug-12	0%	-125	-67					
A19130	FP-ABWF works excluding windows, louvers and doors	02-Aug-12	02-Oct-12	268	16-Apr-12	08-Jan-13	27.42%	-98	-98					
A19140	FP-Installation of roof waterproofing system works	21-Jan-12	19-Feb-12	30	25-May-12	23-Jun-12	0%	-125	-125					
FP-Plumbing and Drainage														
A19010	FP-BS piping works(P&D) 1st stage	03-Jun-12	02-Jul-12	30	09-Aug-12	07-Sep-12	0%	-67	-67					
FP-Electrical														
A19030	FP-BS Cable laying works(Electrical) 1st stage	03-Jun-12	02-Jul-12	30	09-Aug-12	07-Sep-12	0%	-67	-67					
FP-Fire Services														
A19070	FP-BS piping works(Fire Services) 1st stage	03-Jun-12	02-Jul-12	30	09-Aug-12	07-Sep-12	0%	-67	-67					
FP-Processing Works														
A18800	FP-BDI Fat Prep. Equipment Installation Works	20-Feb-12	19-Mar-12	29	24-Jun-12	23-Jul-12	0%	-125	-58					
1B - Boiler Room														
Boiler Room Structural and Builder's Work														
A19500	BR-Boiler Room Steel Works	29-Jan-12	08-Apr-12	70	04-Jun-12	14-Aug-12	0%	-128	-125					
A19800	BR-Cladding Roof Installation	08-Apr-12	09-May-12	31	14-Aug-12	14-Sep-12	0%	-128	-125					
A19900	BR-Chimney Works	03-Jun-12	04-Jul-12	31	14-Aug-12	14-Sep-12	0%	-72	-60					
A20140	BR-Installation of roof waterproofing system works	21-Jan-12	19-Feb-12	30	25-May-12	23-Jun-12	0%	-125	-125					
BR-Processing Works														
A19600	BR-BDI Boiler Room & Utility Equipment Installation Works	18-Jan-12	27-Mar-12	70	25-May-12	02-Aug-12	0%	-128	-125					
2A - Tank Farm														
Tank Farm 2A Structural and Builder's Work														
A20520	2A-Bund walls structural concrete works 2nd stage	05-Apr-12	12-May-12	76	17-Mar-12	31-May-12	81.58%	-19	-19					
A20610	2A-Erection of tanks in Tank Farm 2A 1st stage	26-Feb-12	03-Apr-12	73	15-Mar-12	26-May-12	94.74%	-53	-53					
A20620	2A-Erection of tanks in Tank Farm 2A 2nd stage	04-Apr-12	11-May-12	38	27-May-12	03-Jul-12	0%	-53	-53					
A20630	2A-Erection of tanks in Tank Farm 2A 3rd stage	12-May-12	18-Jun-12	38	04-Jul-12	10-Aug-12	0%	-53	-53					
2A-Plumbing and Drainage														
A20810	2A-BS Piping works(P&D) at Tank Farms 1st stage	12-Jul-12	12-Aug-12	32	11-Aug-12	11-Sep-12	0%	-30	-46					
2A-Electrical														
A20830	2A-BS Cable laying works(Electrical) at Tank Farms 1st stage	12-Jul-12	12-Aug-12	32	11-Aug-12	11-Sep-12	0%	-30	-46					
2A-Fire Services														
A20850	2A-Piping works(Fire Services) at Tank Farms 1st stage	12-Jul-12	12-Aug-12	32	11-Aug-12	11-Sep-12	0%	-30	-46					
2A - GTWSR Separation Room														
GTWSR Structural and Builder's Work														
A21300	GTWSR-Foundation Construction	27-Jan-12	03-Mar-12	37	11-May-12	16-Jun-12	37.84%	-105	-105					
A21410	GTWSR-Concreting works for GTWSR 1st Stage	04-Mar-12	03-Apr-12	31	17-Jun-12	17-Jul-12	0%	-105	-105					

Date	Revision	Checked	Approved
11-May-12	Bi-weekly report update		
25-May-12	Bi-weekly report update		

BL
 Actual Work
 Remaining Work
 Critical Remaining Work
 Baseline Milestone

◆ Milestone
 Summary

Proposed Bio-Diesel Plant at T.K.O. Lot 39 Main Contract for All Remaining Works

3 Month Rolling Programme

for Bi-weekly Report (25 May 2012)

Activity ID	Activity Name	BL Start	BL Finish	Current Duration	Current Start	Current Finish	% Complete	Delay from Initial	Total Float	2012			
										May	Jun	Jul	Aug
A21420	GTWSR-Concreting works for GTWSR 2nd Stage	04-Apr-12	04-May-12	31	18-Jul-12	17-Aug-12	0%	-105	-99				
GTWSR-Processing Works		04-Mar-12	04-Oct-12	122	17-Jun-12	16-Oct-12		-13	12				
A21500	GTWSR-Paques Process Equipment Installation Works	04-Mar-12	04-May-12	62	17-Jun-12	17-Aug-12	0%	-105	-102				
A21600	GTWSR-Paques Piping, Electrical, Insulation & Instrumentation Works	05-May-12	03-Jul-12	60	18-Aug-12	16-Oct-12	0%	-105	-102				
A21700	GTWSR-BDI Unloading Equipment Installation Works	27-Sep-12	04-Oct-12	14	18-Aug-12	31-Aug-12	0%	33	58				
2B-E Tank Farm		21-Jan-12	30-May-12	135	25-Apr-12	07-Sep-12		-99	-136				
Tank Farm 2B-2E Structural and Builder's Work		21-Jan-12	30-May-12	135	25-Apr-12	07-Sep-12		-99	-136				
A22410	2BE-Bund wall concreting works 1st stage	21-Jan-12	28-Feb-12	65	25-Apr-12	28-Jun-12	10.26%	-121	-136				
A22420	2BE-Bund wall concreting works 2nd stage	29-Feb-12	07-Apr-12	39	29-Jun-12	07-Aug-12	0%	-121	-136				
A22510	2BE-Erection tanks in Tank Farm 2B-2E 1st stage	30-Apr-12	30-May-12	31	07-Aug-12	07-Sep-12	0%	-99	-136				
3 - Waste Water Treatment Plant		05-Apr-12	12-Sep-12	138	28-Apr-12	12-Sep-12		-1	0				
Waste Water Treatment Plant Structural and Builder's Work		05-Apr-12	04-Jul-12	100	28-Apr-12	05-Aug-12		-32	-32				
A23320	WWTP-Structural concreting works 2nd pour	05-Apr-12	04-May-12	40	28-Apr-12	06-Jun-12	56.67%	-33	-33				
A23330	WWTP-Structural concreting works 3rd pour	05-May-12	04-Jun-12	30	07-Jun-12	06-Jul-12	0%	-32	-32				
A23400	WWTP-IC Reactor Erection	21-Apr-12	11-May-12	21	25-May-12	14-Jun-12	0%	-34	-34				
A24010	WWTP-Installation of roof waterproofing system	05-Jun-12	04-Jul-12	30	07-Jul-12	05-Aug-12	0%	-32	-32				
WWTP-Plumbing and Drainage		03-Jul-12	31-Aug-12	60	07-Jul-12	04-Sep-12		-4	-4				
A23610	WWTP-BS piping works(P&D) at WWTP 1st stage	03-Jul-12	01-Aug-12	30	07-Jul-12	05-Aug-12	0%	-4	-4				
A23620	WWTP-BS piping works(P&D) at WWTP 2nd stage	02-Aug-12	31-Aug-12	30	06-Aug-12	04-Sep-12	0%	-4	-4				
WWTP-Electrical		14-Jul-12	12-Sep-12	60	07-Jul-12	04-Sep-12		7	8				
A23630	WWTP-Cable laying works (Electrical) at WWTP 1st stage	14-Jul-12	13-Aug-12	30	07-Jul-12	05-Aug-12	0%	7	8				
A23640	WWTP-Cable laying works (Electrical) at WWTP 2nd stage	13-Aug-12	12-Sep-12	30	06-Aug-12	04-Sep-12	0%	7	8				
WWTP-Fire Services		14-Jul-12	12-Sep-12	60	07-Jul-12	04-Sep-12		7	8				
A23660	WWTP-Piping works(Fire Services) at WWTP 1st stage	14-Jul-12	13-Aug-12	30	07-Jul-12	05-Aug-12	0%	7	8				
A23670	WWTP-Piping works(Fire Services) at WWTP 2nd stage	13-Aug-12	12-Sep-12	30	06-Aug-12	04-Sep-12	0%	7	8				
WWTP-Processing Works		12-May-12	09-Aug-12	90	15-Jun-12	12-Sep-12		-34	-34				
A23500	WWTP-Treatment Equipment Installation Works	12-May-12	09-Aug-12	90	15-Jun-12	12-Sep-12	0%	-34	-34				
4A - Jetty		22-Dec-11	19-May-12	131	07-May-12	14-Sep-12		-118	-70				
Jetty Structural and Builder's Work		22-Dec-11	19-May-12	131	07-May-12	14-Sep-12		-118	-70				
A24108	4A-Temp Platform Erection Stage 1 (Mid)			23	07-May-12	29-May-12	75%		-70				
A24117	4A-Temporary Platform Erection Stage 2 (RHS)			20	30-May-12	18-Jun-12	0%		-66				
A24118	4A-2600 Temporary Casing Erection (2 nos) and level of Platform Formation at seawall			7	19-Jun-12	25-Jun-12	0%		-65				
A24119	4A-Temporary Platform Erection Stage 3 (LHS)			20	26-Jun-12	15-Jul-12	0%		-65				
A24120	4A-Construct upto 2 nos of Jetty Bored Piles	22-Dec-11	24-Feb-12	24	30-May-12	22-Jun-12	0%	-119	-70				
A24130	4A-Construct upto 6 nos of Jetty Bored Piles	25-Feb-12	25-Mar-12	28	23-Jun-12	20-Jul-12	0%	-117	-70				
A24140	4A-Construct upto 10 nos of Jetty Bored Piles	26-Mar-12	24-Apr-12	28	21-Jul-12	17-Aug-12	0%	-115	-70				
A24210	4A-Construct upto 14 nos of Jetty Bored Piles	25-Apr-12	19-May-12	28	18-Aug-12	14-Sep-12	0%	-118	-70				
Pipe Bridge & Pipe Trench Works		21-Jan-12	25-Feb-12	115	25-May-12	16-Sep-12		-204	-72				
A24900	Pipe Bridge Between FAT and WWTP	27-Jan-12	25-Feb-12	30	07-Jul-12	05-Aug-12	0%	-162	-30				
A24910	Erection of steel pipe racks at Tank Farm 2A & GTWSR	27-Jan-12	25-Feb-12	30	18-Aug-12	16-Sep-12	0%	-204	-74				
A24920	Erection of pipe bridge between Tank Farm 2A and Tank Farm 2B-2E	27-Jan-12	25-Feb-12	30	25-May-12*	23-Jun-12	0%	-119	-53				
A24930	Erection of steel pipe racks at Tank Farm 2B-2E	27-Jan-12	25-Feb-12	30	25-May-12*	23-Jun-12	0%	-119	11				
A25000	Pipe Bridge Between PB and FP	21-Jan-12	23-Feb-12	34	24-Jun-12	27-Jul-12	0%	-155	-53				
External Works		26-Feb-12	03-Aug-12	210	28-Mar-12	23-Oct-12		-81	-81				
A25200	External Drainage Works. (Divided into 6 Areas)	26-Feb-12	03-Aug-12	210	28-Mar-12	23-Oct-12	5%	-81	-81				
A25220	Storm water manhole works 2nd stage	06-Mar-12	05-Apr-12	31	25-May-12	24-Jun-12	0%	-80	-80				
A25230	Storm water manhole works 3rd stage	06-Apr-12	05-May-12	30	25-Jun-12	24-Jul-12	0%	-80	-80				

Date	Revision	Checked	Approved
11-May-12	Bi-weekly report update		
25-May-12	Bi-weekly report update		








Proposed Bio-Diesel Plant at T.K.O. Lot 39 Main Contract for All Remaining Works

**3 Month Rolling Programme
for Bi-weekly Report (25 May 2012)**

BL
 Actual Work
 Remaining Work
 Critical Remaining Work
 Baseline Milestone

◆ Milestone
▶ Summary

Activity ID	Activity Name	BL Start	BL Finish	Current Duration	Current Start	Current Finish	% Complete	Delay from Initial	Total Float	2012			
										May	Jun	Jul	Aug
A25240	Storm water manhole works 4th stage	06-May-12	04-Jun-12	30	25-Jul-12	23-Aug-12	0%	-80	-80				
A25250	Storm water manhole works 5th stage	05-Jun-12	04-Jul-12	30	24-Aug-12	22-Sep-12	0%	-80	-80				
A25270	Faul Water manhole and the pipe works between the manholes with the associated bran	26-Feb-12	26-Mar-12	57	20-Apr-12	15-Jun-12	1%	-81	-81				
A25280	Faul Water manhole and the pipe works between the manholes with the associated bran	27-Mar-12	25-Apr-12	30	16-Jun-12	15-Jul-12	0%	-81	-81				
A25290	Faul Water manhole and the pipe works between the manholes with the associated bran	26-Apr-12	25-May-12	30	16-Jul-12	14-Aug-12	0%	-81	-81				
A25300	Faul Water manhole and the pipe works between the manholes with the associated bran	26-May-12	24-Jun-12	30	15-Aug-12	13-Sep-12	0%	-81	-81				
Works By Other Contractors				260	01-Mar-12	15-Nov-12			-113				
Works By BDI				260	01-Mar-12	15-Nov-12			-113				
BDI Preliminaries				140	01-Mar-12	18-Jul-12			-113				
P3220	Procurement and Prefabrication of Pipes			140	01-Mar-12	18-Jul-12	56.35%		-113				
BDI Processing Pipe Installation Works				120	19-Jul-12	15-Nov-12			-113				
P3230	BDI - PB Pipe installation works			120	19-Jul-12	15-Nov-12	0%		-113				

-  BL
-  Actual Work
-  Remaining Work
-  Critical Remaining Work
-  Baseline Milestone
-  Milestone
-  Summary

Proposed Bio-Diesel Plant at T.K.O. Lot 39 Main Contract for All Remaining Works

**3 Month Rolling Programme
for Bi-weekly Report (25 May 2012)**

Date	Revision	Checked	Approved
11-May-12	Bi-weekly report update		
25-May-12	Bi-weekly report update		

APPENDIX C
SUMMARY OF SITE AUDITS

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

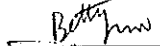
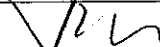
Monthly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	120314
Date	14 March 2012 (Wednesday)
Time	15:45 – 17:00

Ref. No.	Non-Compliance	Related Item No.
-	None	-

Ref. No.	Remarks/Observations	Related Item No.
120314-R01	<p>A. Water Quality</p> <ul style="list-style-type: none"> Ponding water should be cleared or larvicidal oil should be added to eliminate mosquito breeding ground. 	B13
120314- R02	<p>B. Air Quality</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	E8
120314- R03	<p>C. Noise</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>D. Waste / Chemical Management</p> <ul style="list-style-type: none"> Drip trays should be provided under chemical containers to prevent leakage and ponding water in drip tray should be removed. Leaked paint should be cleaned. 	E7
	<p>E. Permit / Licenses</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	<p>F. Reminders</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. 	
	<p>G. Others</p> <p>Follow-up on previous audit section (Ref. No.:120217):</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the last site inspection. 	

	Name	Signature	Date
Recorded by	Betty Choi		19 March 2012
Checked by	Dr. HF Chan		19 March 2012

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

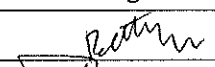
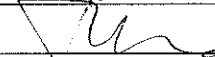
Monthly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	120424
Date	24 April 2012 (Tuesday)
Time	16:15 – 17:00

Ref. No.	Non-Compliance	Related Item No.
-	None	-

Ref. No.	Remarks/Observations	Related Item No.
120424-R01 120424-R02	<p>A. Water Quality</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>B. Air Quality</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>C. Noise</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>D. Waste / Chemical Management</p> <ul style="list-style-type: none"> Drip tray should be provided to store chemical containers. Contaminated soil should be removed. <p>E. Permit / Licenses</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>F. Reminders</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>G. Others</p> <p>Follow-up on previous audit section (Ref. No.:120314):</p> <ul style="list-style-type: none"> All environmental deficiencies were improved/rectified by the Contractor. 	E8 E7

	Name	Signature	Date
Recorded by	Betty Choi		25 April 2012
Checked by	Dr. HF Chan		25 April 2012

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

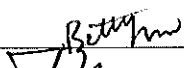
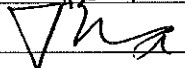
Monthly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	120522
Date	22 May 2012 (Tuesday)
Time	15:15 – 16:00

Ref. No.	Non-Compliance	Related Item No.
-	None	-

Ref. No.	Remarks/Observations	Related Item No.
120522-R02	<p>A. Water Quality</p> <ul style="list-style-type: none"> • Ponding water should be cleared or added with larvicidal oil. 	B13
120522-R01	<p>B. Air Quality</p> <ul style="list-style-type: none"> • Stockpile should be covered with tarpaulin. 	C10
120522-R03	<ul style="list-style-type: none"> • The wheels of vehicles moving in and out of the site should be sprayed with water more thoroughly. 	C3
	<p>C. Noise</p> <ul style="list-style-type: none"> • No environmental deficiency was identified during site inspection. 	
	<p>D. Waste / Chemical Management</p> <ul style="list-style-type: none"> • No environmental deficiency was identified during site inspection. 	
	<p>E. Permit / Licenses</p> <ul style="list-style-type: none"> • No environmental deficiency was identified during site inspection. 	
	<p>F. Reminders</p> <ul style="list-style-type: none"> • No environmental deficiency was identified during site inspection. 	
	<p>G. Others</p> <p>Follow-up on previous audit section (Ref. No.:120424):</p> <ul style="list-style-type: none"> • All environmental deficiencies were improved/rectified by the Contractor. 	

	Name	Signature	Date
Recorded by	Betty Choi		22 May 2012
Checked by	Dr. HF Chan		22 May 2012

**APPENDIX D
PERMITS AND LICENSES**

Appendix D - Summary of Environmental Licensing and Permit Status

Permit / License No.	Valid Period		Details	Status
	From	To		
Environmental Permit (EP)				
EP-319/2009/A	07/04/2009	N/A	Construction and operation of (i) a biochemical plant with a storage capacity of more than 500 tonnes and in which substances are processed and produced; (ii) a storage, transfer and trans-shipment of oil facility with a storage capacity of not less than 1,000 tonnes; and (iii) a dangerous goods godown with a storage capacity exceeding 500 tonnes .	Valid
Registration of Chemical Waste Producer				
WPN-5113-839-C1186-15	12/06/2009	-	Spent Lubrication oil.	Valid
Construction Noise Permit (CNP)				
GW-RE0212-12	22/03/2012	21/04/2012	Use of Powered Mechanical Equipment during 0000-2400 hours on general holidays (including Sundays), 0000-0700 hours and 1900-2400 hours on any day not being a general holiday.	Invalid
GW-RE0282-12	22/04/2012	21/05/2012	Use of Powered Mechanical Equipment during 0000-2400 hours on general holidays (including Sundays), 0000-0700 hours and 1900-2400 hours on any day not being a general holiday.	Invalid
GW-RE0284-12	22/04/2012	21/05/2012	Use of Powered Mechanical Equipment during 0000-2400 hours on general holidays (including Sundays), 0000-0700 hours and 1900-2400 hours on any day not being a general holiday.	Invalid

Permit / License No.	Valid Period		Details	Status
	From	To		
GW-RE0376-12	22/05/2012	21/06/2012	Use of Powered Mechanical Equipment during 0000-2400 hours on general holidays (including Sundays), 0000-0700 hours and 1900-2400 hours on any day not being a general holiday.	Valid
GW-RE0377-12	22/05/2012	21/06/2012	Use of Powered Mechanical Equipment during 0000-2400 hours on general holidays (including Sundays), 0000-0700 hours and 1900-2400 hours on any day not being a general holiday.	Valid
Wastewater Discharge License				
WT00004508-2009	07/09/2009	-	Discharge of wastewater from construction site including wheel washing water and chemical precipitation tank	Valid
Billing Account for Disposal of Construction Waste				
A/C No.: 7013917	-	-	-	Valid
Notification of Works under APCO				
Ref. no.: 337009	26/10/2011	-	-	Valid

**APPENDIX E
UPDATED ENVIRONMENTAL
MITIGATION IMPLEMENTATION
SCHEDULE**

Appendix E - Summary of Environmental Mitigation Implementation Schedule (Construction Phase)

Types of Impacts	Mitigation Measures	Status
<p align="center">Construction Dust</p>	<ul style="list-style-type: none"> • Dust control measures such as water spaying on roads and dusty areas, covering of lorries by impervious sheets and controlling of the falling height of fill materials will be implemented; • Effective dust screens, sheeting or netting will be provided to enclose the scaffolding from the ground level of the facility during the building construction; • All debris and materials will be covered or stored in a sheltered debris collection area; • Hoarding from ground level will be provided along the entire length of the site boundary except for a site entrance or exit; • Every stockpile of dusty materials will be covered entirely by impermeable sheeting or placed in an area sheltered on the top and the 3 sides; • Regular maintenance and checking of the diesel powered mechanical equipment will be adopted to avoid any black smoke emissions and to minimize gaseous emissions. • Monthly site audits will be conducted to ensure the implementation of suitable dust control measures and good site practices. 	<p align="center">^</p> <p align="center">^</p> <p align="center">^</p> <p align="center">^</p> <p align="center">•</p> <p align="center">^</p> <p align="center">^</p>
<p align="center">Construction Noise</p>	<ul style="list-style-type: none"> • Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction program; • Silencers or mufflers on construction equipment will be utilized and will be properly maintained during the construction program; • Mobile plant, if any, will be sited as far from NSRs as possible; • Machines and plant (such as trucks) that may be in intermittent use will be shut down between work periods or will be throttled down to a minimum; • Plant known to emit noise strongly in one direction will, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and • Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from onsite construction activities. 	<p align="center">^</p> <p align="center">^</p> <p align="center">^</p> <p align="center">^</p> <p align="center">^</p> <p align="center">^</p>

Remarks: ^ Compliance of mitigation measure; X Non-compliance of mitigation measure;
 N/A Not Applicable at this stage; • Non-compliance but rectified by the contractor;
 * Recommendation was made during site audit but improved/rectified by the contractor;
 # Non-compliance but rectified/improved by the contractor and awaiting IEC's further comment.

Types of Impacts	Mitigation Measures	Status
Water Quality	<p><u>Piling Activities</u></p> <ul style="list-style-type: none"> Silt curtain will be installed around the marine piling area to contain any suspended mud and sediments generated during the piling works. Silt removal facilities such as silt traps or sedimentation facilities will be provided to remove silt particles from groundwater (if pumping is required) to meet the requirements of the TM standard under the WPCO. The design of silt removal facilities will be based on the guidelines provided in ProPECC PN 1/94. All drainage facilities and erosion and sediment control structures will be inspected monthly and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. 	^
	<p><u>Construction Site Run-off and Drainage</u></p> <ul style="list-style-type: none"> Silt removal facilities such as silt traps or sedimentation facilities will be provided to remove silt particles from runoff to meet the requirements of the TM standard under the WPCO. The design of silt removal facilities will be based on the guidelines provided in ProPECC PN 1/94. All drainage facilities and erosion and sediment control structures will be inspected monthly and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Careful programming of the works to minimise surface excavations for the construction works during the wet season. If excavation of soil cannot be avoided during the wet season, exposed slope surfaces will be covered by a tarpaulin or other means. Other measures that need to be implemented before, during, and after rainstorms are summarised in ProPECC PN 1/94. Exposed soil surfaces will be protected by paving or fill material as soon as possible to reduce the potential of soil erosion. Open stockpiles of construction materials or construction wastes on-site of more than 50m³ will be covered with tarpaulin or similar fabric during rainstorms. These materials will not be placed near the seawall area. 	^ ^ ^ ^
	<p><u>General Construction Activities</u></p> <ul style="list-style-type: none"> Debris and refuse generated on-site will be collected, handled and disposed of properly to avoid entering the nearby water sensitive receivers (WSRs). Stockpiles of cement and other construction materials will be kept covered when not being used. Oils and fuels will only be used and stored in designated areas which have pollution prevention facilities. All fuel tanks and storage areas will be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund will be drained of rainwater after a rain event. 	^ ^

Remarks: ^ Compliance of mitigation measure; X Non-compliance of mitigation measure;
 N/A Not Applicable at this stage; • Non-compliance but rectified by the contractor;
 * Recommendation was made during site audit but improved/rectified by the contractor;
 # Non-compliance but rectified/improved by the contractor and awaiting IEC's further comment.

Types of Impacts	Mitigation Measures	Status
	<p data-bbox="394 225 902 252"><u>Sewage generated from On-site Workforce</u></p> <ul data-bbox="443 296 1980 427" style="list-style-type: none"> <li data-bbox="443 296 1980 360">• Temporary sanitary facilities, such as portable chemical toilets, will be provided on-site. A specialised contractor will be responsible for regular collection and appropriate disposal of the sewage and maintenance of these facilities. <li data-bbox="443 363 1980 427">• Monthly site inspections will be carried out during construction to ensure that the mitigation measures listed above are properly implemented. The site audit frequency will be increased to weekly intervals during the piling works. 	<p data-bbox="2040 296 2101 323">N/A</p> <p data-bbox="2056 363 2085 391">^</p>
<p data-bbox="215 488 315 515">Ecology</p>	<ul data-bbox="443 472 1980 563" style="list-style-type: none"> <li data-bbox="443 472 1980 563">• Mitigation measures for minimising water quality impacts are presented in detail above. These measures will be properly implemented and good construction practices will be adopted to minimise potential adverse impacts to marine ecological resources. 	<p data-bbox="2056 488 2085 515">^</p>

Remarks: ^ Compliance of mitigation measure; X Non-compliance of mitigation measure;
 N/A Not Applicable at this stage; • Non-compliance but rectified by the contractor;
 * Recommendation was made during site audit but improved/rectified by the contractor;
 # Non-compliance but rectified/improved by the contractor and awaiting IEC's further comment.

**APPENDIX F
COMPLAINT LOG**

APPENDIX F – COMPLAINT LOG**Reporting Quarter:** March 2012 to May 2012

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

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