


ASB Biodiesel (Hong Kong) Limited

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

Quarterly EM&A Summary Report

March 2013 to May 2013

(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>From:</i>	Mr. Mark Cheung	<i>Ref:</i>	D1067/H02089
<i>Job No.</i>	D1067	<i>Total Pages:</i>	1

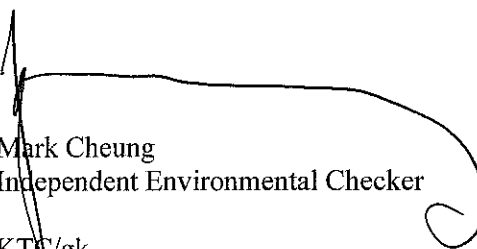
**SUBJECT: Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate
Quarterly EM&A Summary Report (March 2013 to May 2013)**

Dear Sir / Madam,

We refer to your submission of the Quarterly EM&A Summary Report (March 2013 to May 2013) via email dated 14 June 2013.

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 16th 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 to May 2013.
2. The major site activities undertaken in the reporting quarter included:
 - General site cleaning and tidying.
 - Zone 1A Administration Building – Finishing work
 - Zone 1A Administration Building – Windows, louver and doors installation work
 - Zone 1B Fat Preparation Building – Windows, louver and doors installation work
 - Zone 1B Fat Preparation Building – Finishing work
 - Zone 1B Steam Boiler Room Building – Windows, louver and doors installation work
 - Zone 2A GTWSR – Equipment installation work
 - Zone 2B-2E Tank Farm – Steel tank fabrication work
 - Zone 2B-2E – LV switch room construction work
 - WWTP – Roof system installation work
 - WWTP – Equipment installation work
 - Jetty – Pile cap and deck superstructure construction work
 - Pipe Bridge – Pipe Bridge Erection Work
 - Building Services – P&D work
 - Building Services – Fire Service work
 - Building Services – MVAC work
 - Building Services – Electrical work
 - External Works – Boundary wall construction work
 - External Works – Storm water drainage work
 - External Works – Foul water drainage work
 - External Works – Fresh water main installation work
 - External Works – Salt water main installation work
 - External Works – Fire Services pipes laying work
 - External Works – Cable laying work
 - External Works – Pavement work
 - Jetty – Seawater Pump House construction work
 - Jetty – Seawater Pump Installation work
 - External Works – Fire Services pipe laying work
 - External Works – Draw Pit construction & Cable Ducts laying work

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 (CNP) (GW-RE0043-13), Wastewater Discharge License (WT00004508-2009), Notification of Works under APCO (337009) and Waste Discharge Account (7013917).

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 2013	Submitted to EPD on 16 April, 9 May and 17 June 2013 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.
 - Tank Farm 2A – Pipe installation work
 - Tank Farm 2A GTWSR – Equipment and pipe installation works
 - Tank Farm 2B-2E – Tank fabrication works
 - Building Services – Fire services work
 - Building Services – MVAC work
 - Building Services – Electrical work
 - Building Services – P&D work
 - Building Services – Lift installation work
 - External – Boundary wall construction work
 - External Works – Storm water drainage work
 - External Works – Foul water drainage work
 - External Works – Plumbing laying work
 - External Works – Fire Services piping laying work
 - External Works – Draw Pit construction & Cable Ducts laying work
 - External Works – Pavement work

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 Environmental Permits (EP) No. EP-319/2009, EP-319/2009/A and EP-319/2009/B were issued on 11 March 2009, 7 April 2009 and 31 Jan 2013 respectively for Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate to ASB Biodiesel (Hong Kong) Limited as the Permit Holder. A VEP was submitted and the latest EP No. EP-319/2009/C was issued by EPD on 5 Mar 2013.
- 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 16th Quarterly EM&A Summary Report summarizing the EM&A works for the Project in from March to May 2013.

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 – Finishing work
 - Zone 1A Administration Building – Windows, louver and doors installation work
 - Zone 1B Fat Preparation Building – Windows, louver and doors installation work
 - Zone 1B Fat Preparation Building – Finishing work
 - Zone 1B Steam Boiler Room Building – Windows, louver and doors installation work
 - Zone 2A GTWSR – Equipment installation work
 - Zone 2B-2E Tank Farm – Steel tank fabrication work
 - Zone 2B-2E – LV switch room construction work
 - WWTP – Roof system installation work
 - WWTP – Equipment installation work
 - Jetty – Pile cap and deck superstructure construction work
 - Pipe Bridge – Pipe Bridge Erection Work
 - Building Services – P&D work
 - Building Services – Fire Service work
 - Building Services – MVAC work
 - Building Services – Electrical work
 - External Works – Boundary wall construction work
 - External Works – Storm water drainage work
 - External Works – Foul water drainage work
 - External Works – Fresh water main installation work
 - External Works – Salt water main installation work
 - External Works – Fire Services pipes laying work
 - External Works – Cable laying work
 - External Works – Pavement work
 - Jetty – Seawater Pump House construction work
 - Jetty – Seawater Pump Installation work
 - External Works – Fire Services pipe laying work
 - External Works – Draw Pit construction & Cable Ducts laying work

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 20th March, 17th April and 15th May 2013 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	20/03/2013	The buoy of the silt curtain should be floated.	Follow up action was taken by the Contractor.
Permit/Licenses		Latest environmental permit should be put up.	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 complaints were received in the reporting quarter.
- 2.6 No prosecution or notification of summons was received in the reporting quarter.
- 2.7 Since the Project commencement, there were a total of 5 project-related environmental complaints. No prosecution or notification of summons was 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

Conclusions

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

3.3 No environmental complaints and prosecution or notification of summons received.

Recommendations

3.4 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 properly 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.

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.

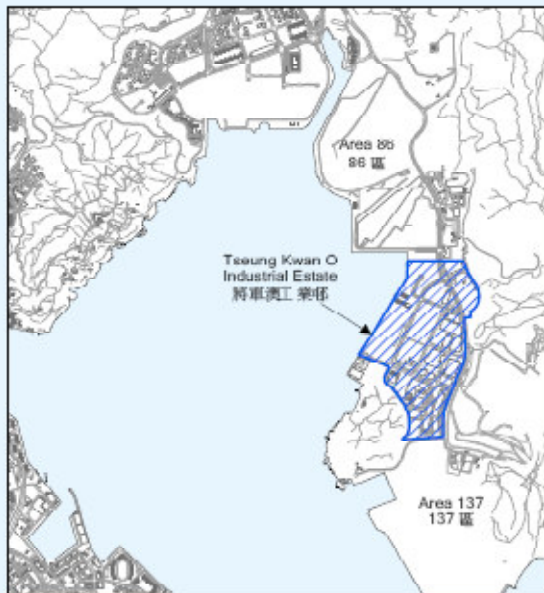
Noise Impact

- 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

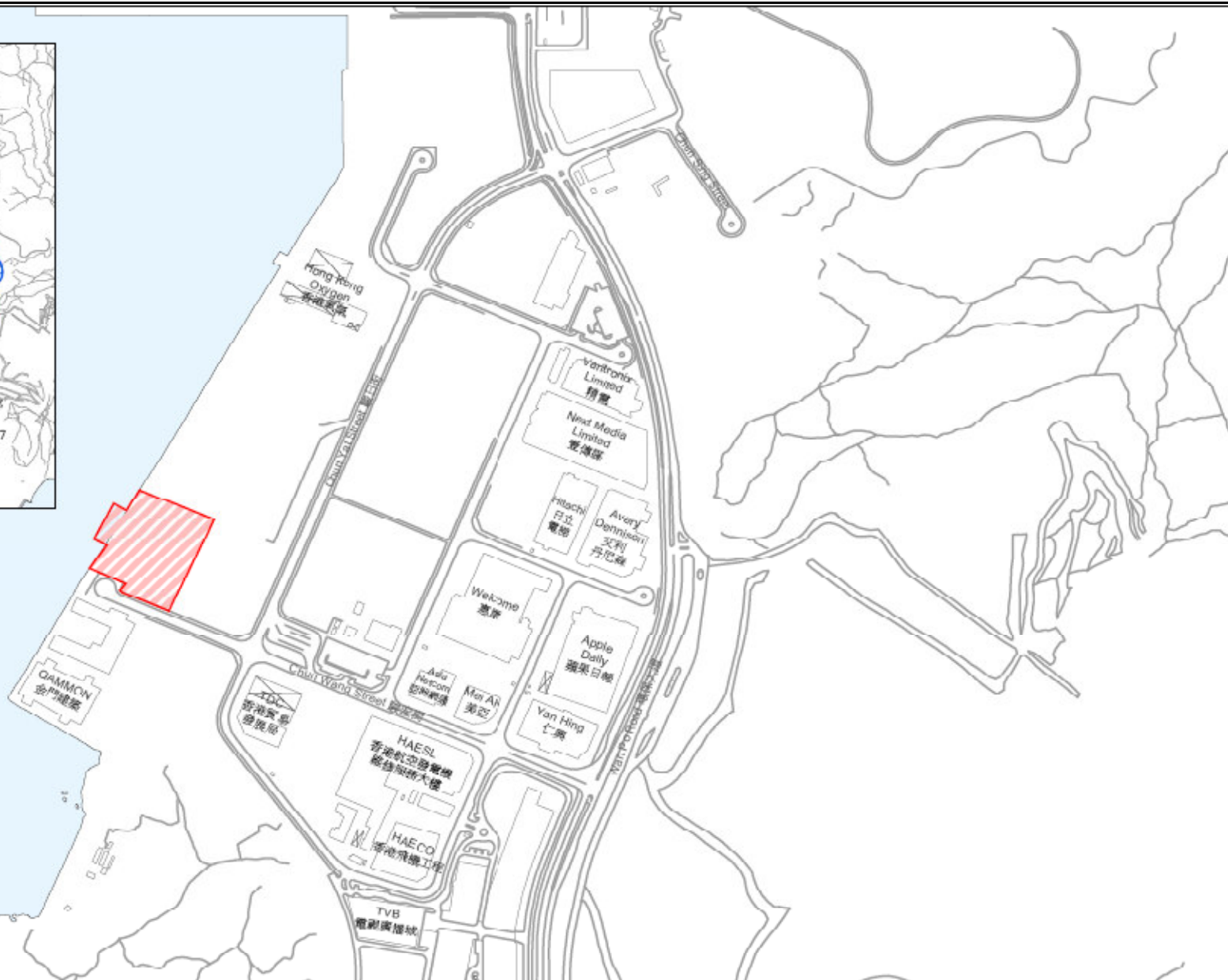
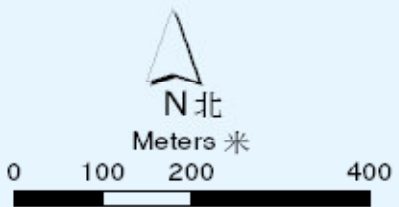
- To provide proper rubbish bins / skips for waste collection.
- To provide proper storage area for oil container on site.
- To avoid and check for any accumulation of waste materials or rubbish on site.
- To avoid any discharge or accidental spillage of chemical waste or oil directly from the equipment.

FIGURES



Key 圖例

 Proposed Site



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



**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	Current Start	Current Finish	Current Duration	BL Start	BL Finish	% Complete	Delay from Initial	Total Float	2013		
										May	Jun	Jul
C270MC-3M-Rolling Programme Ver.2.0 (070613)												
Remaining Construction Works												
1B - Process Building												
PB-Plumbing and Drainage												
A18300	PB-BS Plumbing and Drainage Testing	07-Jun-13	13-Jun-13	7	07-Jun-13	05-Aug-13	0%	53	-213	13-Jun-13, PB-Plumbing and Drainage		
PB-Electrical												
A18055	PB-BS Electrical Testing	15-Jun-13	22-Jun-13	7	15-Jun-13	14-Aug-13	0%	53	-82	22-Jun-13, PB-Electrical		
PB-MVAC												
A18065	PB BS MVAC Testing	20-May-13 A	03-Jul-13	45	24-May-13	22-Jul-13	55%	19	-94	03-Jul-13, PB-MVAC		
PB-Processing Works												
A17900	PB-BDI Pipe insulation, Process Electrical & Instrumentation Works	07-Jun-13	04-Sep-13	90	07-Jun-13	04-Sep-13	0%	0	-278	PB BS		
1B - Fat Preparation Building												
FP-Plumbing and Drainage												
A19055	FP-Installation of sanitary fittings	20-May-13 A	11-Jun-13	23	24-May-13	22-Jun-13	85%	12	-221	21-Jun-13, FP-Plumbing and Drainage		
A19200	FP-BS Plumbing and Drainage Testing	14-Jun-13	21-Jun-13	7	14-Jun-13	24-Jul-13	0%	33	-221	FP-Installation of sanitary fittings		
FP-Electrical												
A19090	FP-BS Electrical Testing	13-Jun-13	20-Jun-13	7	13-Jun-13	23-Jul-13	0%	33	-81	20-Jun-13, FP-Electrical		
FP-Fire Services												
A19300	FP-Fire Service Testing	13-Jun-13	20-Jun-13	7	13-Jun-13	23-Jul-13	0%	33	-81	20-Jun-13, FP-Fire Services		
FP-Processing Works												
A18900	FP-BDI Pipe insulation, Process Electrical & Instrumentation Works	07-Jun-13	01-Aug-13	56	07-Jun-13	01-Aug-13	0%	0	175	FP-Fir		
1B - Boiler Room												
BR-Plumbing and Drainage												
A20055	BR-Installation of sanitary fittings	18-May-13 A	21-Jun-13	35	24-May-13	22-Jun-13	50%	1	-228	28-Jun-13, BR-Plumbing and Dra		
A20200	BR-BS Plumbing and Drainage Testing	22-Jun-13	28-Jun-13	7	22-Jun-13	12-Jul-13	0%	14	-228	BR-Installation of sanitary fittings		
BR-Electrical												
A20040	BR-BS Cable laying works(Electrical) 2nd stage	29-Jun-13	06-Jul-13	7	29-Jun-13	29-Jul-13	0%	23	-156	15-Jul-13, BR-1		
A20050	BR-Lighting installation works	29-Jun-13	06-Jul-13	7	29-Jun-13	29-Jul-13	0%	23	-156	BR-BS Plumbing and Drainage Testing		
A20061	BR-BS Final connection works(Electrical)	01-Jul-13	08-Jul-13	7	01-Jul-13	22-Jul-13	0%	14	-130	BR-BS		
A20090	BR-BS Electrical Testing	08-Jul-13	15-Jul-13	7	08-Jul-13	29-Jul-13	0%	14	-106	16-Jul-13, BR		
BR-Fire Services												
A20080	BR-BS Detector installation works(Fire Services)	07-Jun-13	13-Jun-13	7	07-Jun-13	06-Jul-13	0%	23	-164	BR-BS Detector installati		
A20100	BR-BS Cable laying works (Fire Services)	04-Jul-13	06-Jul-13	3	04-Jul-13	02-Aug-13	0%	27	-107			
A20150	BR-BS Final connection works (Fire Services)	07-Jul-13	09-Jul-13	3	07-Jul-13	05-Aug-13	0%	27	-107			
A20300	BR-Fire Service Testing	10-Jul-13	16-Jul-13	7	10-Jul-13	07-Sep-13	0%	53	-107			
BR-Processing Works												
A19700	BR-BDI Pipe insulation, Process Electrical & Instrumentation Works	07-Jun-13	01-Aug-13	56	07-Jun-13	01-Aug-13	0%	0	311			
2A - Tank Farm												
2A-Electrical												
A20840	2A-BS Cable laying works stage 2 (Electrical)	27-May-13 A	27-Jun-13	32	07-Jun-13	08-Jul-13	35%	11	-119	04-Jul-13, 2A-Electrical		
A20870	2A-BS Electrical Testing	27-Jun-13	04-Jul-13	7	27-Jun-13	11-Jul-13	0%	7	-95	2A-BS Cable laying wo		
2A-Fire Services												
A20890	2A-BS Final connection works(Fire Services)	07-May-13 A	07-Jun-13 A	31	14-May-13	28-May-13	100%	-9		27-Jun-13, 2A-Fire Services		
A21000	2A-Fire Service Testing (excluding FSD Inspection)	13-Jun-13	27-Jun-13	14	13-Jun-13	04-Jul-13	0%	7	-88	2A-BS Final connection works(Fire Services)		
2A-Processing Works												
A20700	2A-BDI Pipe insulation, Process Electrical & Instrumentation Works	18-Jun-13	20-Sep-13	94	18-Jun-13	20-Sep-13	0%	0	-204	2A-Fire Service Testing (ex		

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 EM&A Report (07 June 2013)

Date	Revision	Checked	Approved
07-Jun-13	3 Month Rolling Programme		

Activity ID	Activity Name	Current Start	Current Finish	Current Duration	BL Start	BL Finish	% Complete	Delay from Initial	Total Float	2013		
										May	Jun	Jul
2A - GTW Separation Room												
GTWSR-Plumbing and Drainage												
A21910	GTWSR-BS Piping works(Plumbing)	07-Jun-13	01-Jul-13	25	07-Jun-13	29-Jun-13	0%	-2	-245			
A22200	GTWSR-BS Plumbing and Drainage Testing	02-Jul-13	15-Jul-13	14	02-Jul-13	15-Jul-13	0%	0	-245			
GTWSR-Electrical												
A21950	GTWSR-Lighting installation works	07-Jun-13	13-Jun-13	7	07-Jun-13	06-Jul-13	0%	23	-256			
A21951	GTWSR-BS Final connection works	09-Jun-13	15-Jun-13	7	09-Jun-13	22-Jun-13	0%	7	-83			
A21980	GTWSR-BS Electrical Testing	16-Jun-13	22-Jun-13	7	16-Jun-13	29-Jun-13	0%	7	-83			
GTWSR-Fire Services												
A22300	GTWSR-Fire Service Testing	16-May-13 A	20-Jun-13	36	30-May-13	13-Jun-13	50%	-7	-81			
GTWSR-Processing Works												
A21800	GTWSR-BDI Piping, Electrical, Insulation & Instrumentation Works	07-Jun-13	21-Jul-13	45	07-Jun-13	21-Jul-13	0%	0	186			
2B-E Tank Farm												
Tank Farm 2B-2E-Electrical												
A22840	2BE-BS Cable exposed conduits laying works(Electrical)	07-Jun-13	27-Jun-13	21	07-Jun-13	08-Jul-13	0%	11	-119			
A22841	2BE-BS Final connection works(Electrical)	21-Jun-13	04-Jul-13	14	21-Jun-13	04-Jul-13	0%	0	-109			
A22870	2BE-BS Electrical Testing	05-Jul-13	18-Jul-13	14	05-Jul-13	04-Aug-13	0%	17	-109			
Tank Farm 2B-2E-Fire Services												
A22890	2BE-BS Final connection works(Fire Services)	23-Jun-13	02-Jul-13	10	23-Jun-13	06-Jul-13	0%	4	-107			
A23000	2BE-Fire Service Testing	03-Jul-13	16-Jul-13	14	03-Jul-13	14-Aug-13	0%	29	-107			
Tank Farm 2B-2E-Processing Works												
A22700	2BE-BDI Pipe Insulation, Process Electrical & Instrumentation Works	07-Jun-13	08-Aug-13	63	07-Jun-13	08-Aug-13	0%	0	-161			
3 - Waste Water Treatment Plant												
WWTP-Plumbing and Drainage												
A23800	WWTP-BS Plumbing and Drainage Testing	28-Jun-13	19-Jul-13	21	28-Jun-13	28-Jul-13	0%	9	-249			
WWTP-Electrical												
A23680	WWTP-BS Electrical Testing	20-Jun-13	12-Jul-13	22	20-Jun-13	12-Jul-13	0%	0	-102			
WWTP-Fire Services												
A23900	WWTP-Fire Service Testing	20-May-13 A	19-Jul-13	61	17-Jun-13	16-Jul-13	20%	-3	-110			
WWTP-Processing Works												
A23700	WWTP-Treatment Installation Testing	26-Jun-13	16-Jul-13	20	26-Jun-13	26-Jul-13	0%	10	-228			
4A - Jetty												
Jetty-Plumbing and Drainage												
A24510	4A-BS Piping works(Plumbing)	07-Jun-13	01-Jul-13	25	07-Jun-13	21-Jul-13	0%	20	-231			
Jetty-Electrical												
A24550	4A-BS Cable exposed conduits laying works(Electrical)	13-May-13 A	11-Jun-13	30	24-May-13	07-Jul-13	90%	27	-120			
A24560	4A-BS Final connection works(Electrical)	20-May-13 A	14-Jun-13	26	24-May-13	07-Jul-13	90%	24	-120			
Jetty-Fire Services												
A24570	4A-BS Detector installation works(Fire Services)	27-May-13 A	09-Jun-13	14	07-Jun-13	06-Jul-13	90%	27	-119			
A24590	4A-BS Final connection works(Fire Services)	03-Jun-13 A	24-Jun-13	21	16-Jun-13	06-Jul-13	60%	13	-122			
A24600	4A-Jetty E&M and FS testing	02-Jul-13	15-Jul-13	14	02-Jul-13	22-Jul-13	0%	7	-137			
Pipe Bridge & Pipe Trench Works												
A25100	Pipe Trench from WWTP to Jetty	25-May-13 A	17-Jul-13	54	03-Jul-13	31-Aug-13	50%	45	-229			
External Works												
External Pumping Works												
A25560	Installation of external fresh watermain 6th stage	07-Jun-13	06-Jul-13	30	07-Jun-13	05-Aug-13	0%	30	-236			

Date	Revision	Checked	Approved
07-Jun-13	3 Month Rolling Programme		

BL
 Actual Work
 Remaining Work
 Critical Remaining Work
 Baseline Milestone

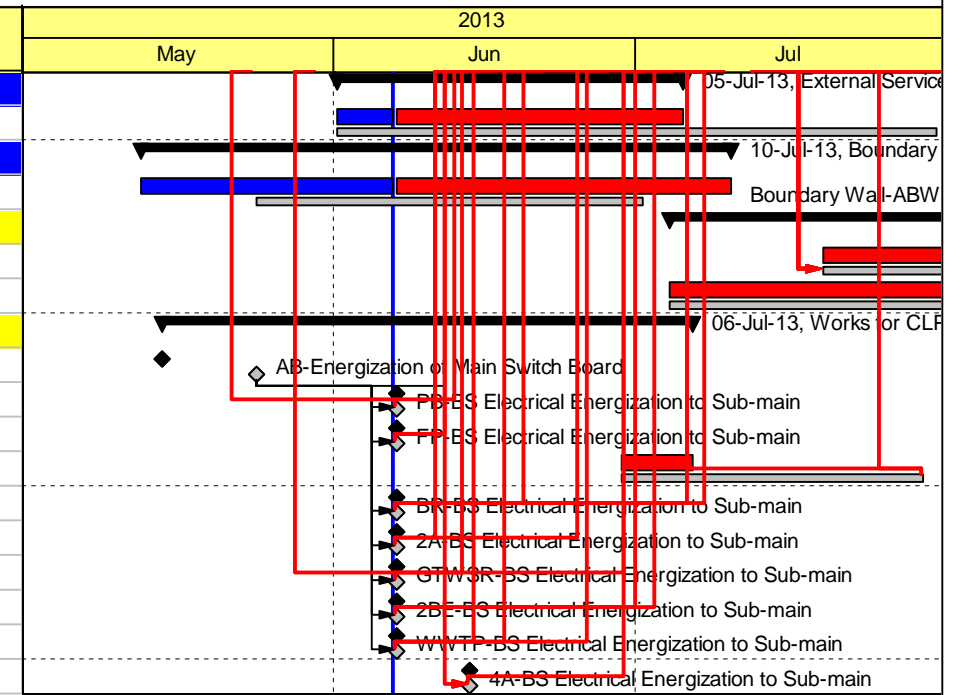
Milestone
 Summary

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

3 Month Rolling Programme

for EM&A Report (07 June?013)

Activity ID	Activity Name	Current Start	Current Finish	Current Duration	BL Start	BL Finish	% Complete	Delay from Initial	Total Float	2013		
										May	Jun	Jul
External Service Cable Works												
A25730	External cable duct and draw pits installation works 6th stage	01-Jun-13 A	05-Jul-13	35	01-Jun-13	30-Jul-13	50%	25	-141			05-Jul-13, External Service
Boundary Wall Construction Works												
A25530	Boundary Wall-ABWF works	13-May-13 A	10-Jul-13	58	24-May-13	01-Jul-13	15%	-8	-312			10-Jul-13, Boundary
Water Supply Works												
A25800	WSD inspection and installation of portable watermeter (WWO46)	19-Jul-13	18-Aug-13	30	19-Jul-13	18-Aug-13	0%	0	-249			
A25810	WSD inspection and installation of FS watermeter (WWO46)	04-Jul-13	02-Aug-13	30	04-Jul-13	02-Aug-13	0%	0	-233			
Works for CLP Energization												
A17615	AB-Energization of Main Switch Board	15-May-13 A	06-Jul-13	53	24-May-13	29-Jul-13	100%	9	-124			06-Jul-13, Works for CLP
A18075	PB-BS Electrical Energization to Sub-main		07-Jun-13	0		07-Jun-13	0%	0	-94			
A19100	FP-BS Electrical Energization to Sub-main		07-Jun-13	0		07-Jun-13	0%	0	-213			
A20060	BR-BS installation of switch board and cable termination works in Switch Rooms	29-Jun-13	06-Jul-13	7	29-Jun-13	29-Jul-13	0%	23	-156			
A20160	BR-BS Electrical Energization to Sub-main		07-Jun-13	0		07-Jun-13	0%	0	-213			
A20910	2A-BS Electrical Energization to Sub-main		07-Jun-13	0		07-Jun-13	0%	0	-210			
A21990	GTWSR-BS Electrical Energization to Sub-main		07-Jun-13	0		07-Jun-13	0%	0	-220			
A22910	2BE-BS Electrical Energization to Sub-main		07-Jun-13	0		07-Jun-13	0%	0	-219			
A23740	WWTP-BS Electrical Energization to Sub-main		07-Jun-13	0		07-Jun-13	0%	0	-227			
A24610	4A-BS Electrical Energization to Sub-main		14-Jun-13	0		14-Jun-13	0%	0	-120			



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

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

3 Month Rolling Programme

for EM&A Report (07 June?013)

Date	Revision	Checked	Approved
07-Jun-13	3 Month Rolling Programme		

APPENDIX C
SUMMARY OF SITE AUDITS

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

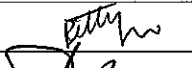
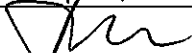
Monthly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	130320
Date	20 March 2013 (Wednesday)
Time	16:45 – 17:15

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

Ref. No.	Remarks/Observations	Related Item No.
130320-R01	<p>A. Water Quality</p> <ul style="list-style-type: none"> The buoy of the silt curtain should be floated. 	
130320-R02	<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"> No environmental deficiency was identified during site inspection. <p>E. Permit / Licenses</p> <ul style="list-style-type: none"> Latest environmental permit should be put up. <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.:130219):</p> <ul style="list-style-type: none"> No environmental deficiency was identified in the previous site inspection. 	F1

	Name	Signature	Date
Recorded by	Betty Choi		21 March 2013
Checked by	Dr. HF Chan		21 March 2013

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate


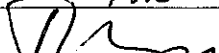
Monthly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	130417
Date	17 April 2013 (Wednesday)
Time	17:00 – 17:15

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

Ref. No.	Remarks/Observations	Related Item No.
	<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"> 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> <ul style="list-style-type: none"> Follow-up on previous audit section (Ref. No.:130320): All environmental deficiencies were improve/rectified in this site inspection. 	

	Name	Signature	Date
Recorded by	Betty Choi		17 April 2013
Checked by	Dr. HF Chan		17 April 2013

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

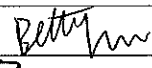
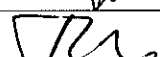
Monthly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	130515
Date	15 May 2013 (Wednesday)
Time	16:15 – 17:00

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

Ref. No.	Remarks/Observations	Related Item No.
	<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"> 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.:130417):</p> <ul style="list-style-type: none"> All environmental deficiencies were improve/rectified in this site inspection. 	

	Name	Signature	Date
Recorded by	Betty Choi		15 May 2013
Checked by	Dr. HF Chan		15 May 2013

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-RE0043-13	02/01/2013	20/07/2013	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
Construction Dust	<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. 	^ ^ ^ ^ ^ ^ ^
Construction Noise	<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. 	^ ^ ^ ^ ^ ^

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="394 228 902 256"><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="2056 312 2078 341">^</p> <p data-bbox="2056 344 2078 373">^</p>
<p data-bbox="215 488 315 517">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 2078 517">^</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 Month:** March to May 2013

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
COM-2012-08-001	Jetty Area	28-08-2012	A resident in Lohas Park complained about noise nuisance from the site.	Investigation by EPD identified the source to be chiselling work at the jetty area. Although the chisel machines were covered by valid CNP, the Contractor decided to suspend the corresponding work during restricted hours. The machine was later covered by sound proof canvas to minimize noise transmission. Subsequent inspection and noise measurement by the EPD on 3 rd September 2012 concluded that the noise reduction measure was effective and acceptable at Lohas Park.	Closed
COM-2012-09-002	Jetty Area	07-09-2012	A resident in Lohas Park complained about noise nuisance from the site.	Investigation by EPD identified the source to be chiselling work at the jetty area. Only one chisel machine was operated on the day of complain and it was screened by sound proof canvas. Although the machine was covered by valid CNP, the Contractor decided to suspend the corresponding work during restricted hours during investigation period. Subsequent inspection and noise measurement (daytime at site, night time at Lohas Park) by the EPD on 12 th September 2012 concluded that the noise levels were acceptable at Lohas Park.	Closed
COM-2012-09-003	Jetty Area	27-09-2012	A resident in Lohas Park complained about noise nuisance from the site.	The chisel machine used at JP3 of the jetty area was identified as the noise source. According to the Contractor, the machine was screened by sound proof canvas. Although the machine was covered by valid CNP, the Contractor decided to carry out the corresponding work during normal operation hours only. This was agreed with the complainant in Lohas Park.	Closed
COM-2012-09-004	Not Specified	04-10-2012	A resident in Lohas Park complained about noise nuisance from the site at	According to the Contractor, According to the Contractor, only one drilling machine and chiselling machine were in use, which were covered by valid CNP. We advised the Contractor to communicate with the residents in Lohas	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			11:18pm.	Park given consistent noise complains. The Contractor explained to the complainant that chiselling work will stop at 11pm every day and start after 10am during weekends to minimize noise nuisance. Further in November, a noise enclosure was erected to cover the noisy part of the chiselling machine.	
Com-2012-11-005	Jetty Area	23-11-2012	A resident in Lohas Park complained about noise nuisance from the site at around 3:00 am	The chisel machine used of the jetty area was identified as the noise source. According to the Contractor, the machine was screened by enclosure. Although the machine was covered by valid CNP, the Contractor decided to carry out the corresponding work during 7:00 – 23:00. Contractor explained to the complainant that the bored piling will be completed in early December.	Closed

Remarks: N/A