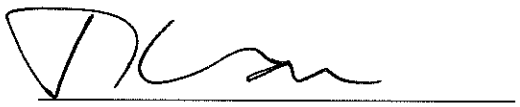
ASB Biodiesel (Hong Kong) Limited

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

Monthly EM&A Report

October 2011

(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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To:	Cinotech	*Date:*	14 November 2011
Attn:	Ms. Ivy Tam / Mr. Felix Kwan	*Fax:*	3107 1388
From:	Mr. Mark Cheung	*Ref:*	D1067/F04397
Job No.	D1067	*Total Pages:*	1

SUBJECT: Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate
Monthly EM&A Report for September 2011

Dear Sir / Madam,

We refer to your submission of the Monthly EM&A Summary Report (October 2011) via email dated 14 November 2011.

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 29th monthly Environmental Monitoring and Audit (EM&A) 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 in October 2011.

2. The major site activities undertaken in the reporting month included:

- General site cleaning and tidying;
- Bamboo scaffolding at Processing Building replacement works; and
- FRP Painting Works at Processing Building.

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. 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, An Environmental Permit No. EP-319/2009 and EP-319/2009/A was 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 Permit (GW-RE0401-11) and Wastewater Discharge License (WT00004508-2009).

Key Information in the Reporting Month

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

Table I Summary Table for Key Information in the Reporting Month

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	1	Monthly EM&A Report for September 2011	Submitted to EPD on 18 October 2011	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 – RC Superstructure Construction Works;
- Processing Building – Cladding Wall Works;
- Fat Preparation Building – RC Superstructure Construction Works;
- Steam Boiler Room – RC Superstructure Construction Works;
- Tank Farm 2A – Footing concrete works;
- Grease Trap Waste Screening Room (GTWSR) – ELS and Foundation Construction Works;
- Tank Farm 2B-2E Bund Wall Concreting Works;
- Jetty – Temporary Construction and Bored Piles Works; and
- Pipe Bridge – Pipe Bridge Erection Works.

7. The future environmental concerns are air quality, waste management 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 m^3 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 Layout plan of tank farm **2A, 2B to 2E** is revised and a report is made by Environmental Resources Management (ERM) regarding such change. The report concluded that no deviation is found from the approved EIA report.

1.5 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.

1.6 Cinotech Consultants Limited was commissioned by ASB Biodiesel (Hong Kong) Limited to undertake the Environmental Monitoring and Audit (EM&A) works for the Project. China Harbour Engineering Company Limited is the Managing Contractor of

the Project. This is the 29th Monthly EM&A report summarizing the EM&A works for the Project in October 2011.

Project Organizations

1.7 Different parties with different levels of involvement in the project organization include:

- Project Proponent – ASB Biodiesel (Hong Kong) Limited
- Contractor – China Harbour Engineering Company Limited (CHEC)
- Environmental Team (ET) – Cinotech Consultants Limited
- Independent Environmental Checker (IEC) –Mannings (Asia) Consultants Ltd.

1.8 The responsibilities of respective parties are detailed in Section 1.10 of the Final EM&A Manual of the Project.

1.9 The key contacts of the Project are shown in **Table 1.1**.

Table 1.1 Key Project Contacts

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	
		Mr. Felix Kwan	Audit Team Leader	2151 2077	
Mannings	Independent Environmental Checker	Mr. Mark Cheung	Independent Environmental Checker	3168 2028	3168 2022
		Mr. Gavin Kwok	Assistant to Independent Environmental Checker	3168 2028	
CHEC	Contractor	Mr. Peter Chung	Project Manager	9471 2438	2623 9226
		Mr. Simon Li	Ass. Planning Engineer (Environmental Supervisor)	6152 7867	
		Mr. Anson Wong	Safety Officer	9656 3837	
		Mr. Johnny So	Graduate Engineer	2623 9292	

Construction Programme

1.10 The site activities undertaken in the reporting month were:

- General site cleaning and tidying;
- Bamboo scaffolding at Processing Building replacement works; and
- FRP Painting Works at Processing Building.

Summary of EM&A Requirements

1.11 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.

1.12 The advice on the implementation status of environmental protection and pollution control/ mitigation measures is summarized in Section 3 of this report.

2 ENVIRONMENTAL AUDIT

Site Audits

2.1 Site audits were 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 summary of the site audit in this reporting month is attached in **Appendix A**.

2.2 Site audit was conducted on 21st October 2011 by ET in the reporting month. No non-compliance was observed during the site audits.

Status of Environmental Licensing and Permitting

2.3 All permits/licenses obtained for the Project are summarized in **Table 2.1**.

Status of Waste Management

2.4 No general refuse, no Inert Construction and Demolition (C&D) Waste and no Chemical Waste were generated in the reporting month. The quantities of waste generated in this reporting month are summarized in **Appendix C**.

Implementation Status of Environmental Mitigation Measures

2.5 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 B**.

Table 2.1 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 tran-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-RE0401-11	02/06/2011	26/11/2011	Use of Powered Mechanical Equipment during 0700-2300 hours on general holidays (including Sundays), 1900-2300 hours on any day not being a general holiday.	Valid
Wastewater Discharge License				
WT00004508-2009	07/09/2009	-	-	Valid

2.6 During the site inspection in the reporting month, no non-conformance was identified. The observations and recommendations made during the audit session are summarized in **Table 2.2**.

Table 2.2 Observations and Recommendations of Site Audit

Parameters	Date	Observations and Recommendations	Follow-up
Water Quality	21/10/2011	Weed in the U-channel should be cleared regularly to avoid blockage.	Follow up action was taken by the Contractor.
Waste / Chemical Management	21/10/2011	The oil drum should be stored in a drip tray.	Follow up action was taken by the Contractor.

Summary of Complaint and Prosecution

2.7 No environmental related complaint, prosecution or notification of summons was received in the reporting month.

2.8 There was no environmental complaint, prosecution or notification of summons received since the Project commencement. The Complaint Log is attached in **Appendix D**.

3 FUTURE KEY ISSUES

Key Issues for the Coming Month

3.1 Key issues to be considered in the coming month 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; and
- Accumulation of C&D waste and general waste on site.

Construction Program for the Next Month

3.2 A tentative construction programme is provided in **Appendix E**. The major construction activities in the coming two months will include:

- General site cleaning and tidying;
- Administration Building – RC Superstructure Construction Works;
- Processing Building – Cladding Wall Works;
- Fat Preparation Building – RC Superstructure Construction Works;
- Steam Boiler Room – RC Superstructure Construction Works;
- Tank Farm 2A – Footing concrete works;
- Grease Trap Waste Screening Room (GTWSR) – ELS and Foundation Construction Works;
- Tank Farm 2B-2E Bund Wall Concreting Works;
- Jetty – Temporary Construction and Bored Piles Works; and
- Pipe Bridge – Pipe Bridge Erection Works.

4 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

4.1 Environmental audit works were conducted in the reporting month. Site inspections were conducted on a monthly basis. The results were reviewed and checked.

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

Recommendations

4.3 According to the environmental audit performed in the reporting month, the following recommendations were made:

Water Quality

- To identify any wastewater discharges from site;
- To avoid accumulation of stagnant and ponding water on site; and
- To clear the drainage channel regularly to prevent blockage;

Air Quality

- To remove fugitive dusty material on the haul road periodically.

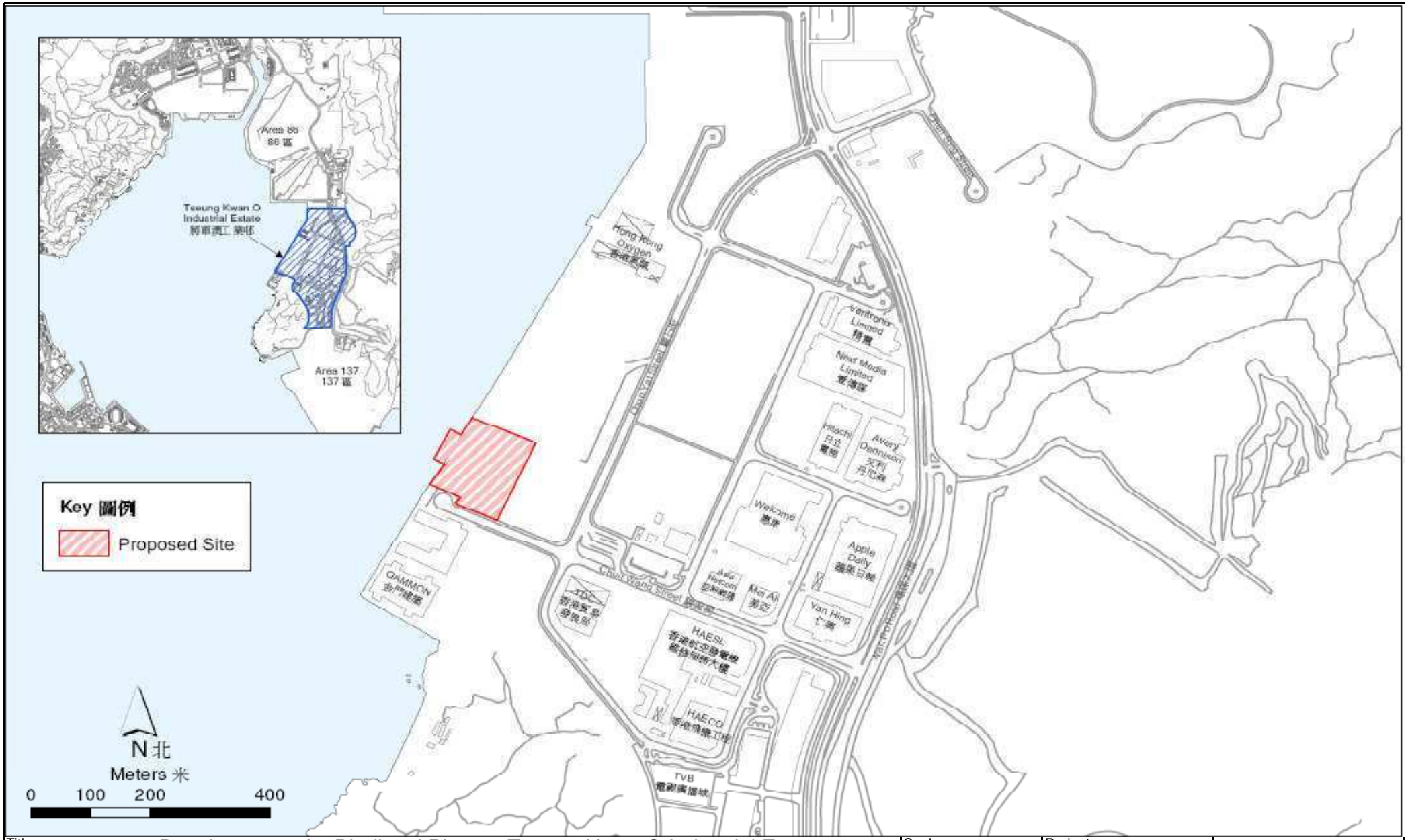
Noise

- To inspect the noise sources inside the site.

Waste / Chemical Management

- To provide proper rubbish bins / skips for waste collection; and
- To avoid and check for any accumulation of waste materials or rubbish on site.

FIGURES



Title	Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate	Scale N.T.S	Project No. MA9021	CINOTECH
	Site Layout Plan	Date Jun-09	Figure 1.1	

APPENDIX A
SITE AUDIT SUMMARY

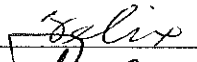
Monthly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	111021
Date	21 October 2011 (Friday)
Time	16:05 – 16:25

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

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality • No environmental deficiency was identified during site inspection. **B. Air Quality** • No environmental deficiency was identified during site inspection. **C. Noise** • No environmental deficiency was identified during site inspection. **D. Waste / Chemical Management** • No environmental deficiency was identified during site inspection. **E. Permit / Licenses** • No environmental deficiency was identified during site inspection. **F. Reminders**	
111021-R01	• Weed in the U-channel should be cleared regularly to avoid blockage.	B8
111021-R02	• The oil drum should be stored in a drip tray.	E3i
	G. Others Follow-up on previous audit section (Ref. No.:110928): • No environmental deficiency was identified during site inspection.	

	Name	Signature	Date
Recorded by	Felix Kwan		21 October 2011
Checked by	Dr. HF Chan		21 October 2011

APPENDIX B
UPDATED ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

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

Types of Impacts	Mitigation Measures	Status
Construction Dust	• 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.	^ N/A ^ ^ ^ ^ ^
Construction Noise	• 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.	^ ^ ^ ^ ^ ^

Types of Impacts	Mitigation Measures	Status
Water Quality	<u>Piling Activities</u> • 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. <u>Construction Site Run-off and Drainage</u> • 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. <u>General Construction Activities</u> • 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.	N/A ^ ^ ^ ^ ^ ^

Types of Impacts	Mitigation Measures	Status
	Sewage generated from On-site Workforce • 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. • 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.	N/A ^
Ecology	• 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.	^

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 C
WASTE GENERATION IN THE REPORTING MONTH

Appendix C - Monthly Summary Waste Flow Table

Biodiesel Plant Tseung Kwan O Project
Reporting Month: October 2011

Month	Actual Quantities of Inert C&D Materials Generated / Imported (in '000 m³)						Actual Quantities of Other C&D Materials / Wastes Generated				
	Total Quantities Generated [a+b+c+d]	Broken Concrete (including rock for recycling into aggregates) (a)	Reused in the Contract (b)	Reused in Other Projects (c)	Disposed as Public Fill (d)	Imported C&D Material	Metal (in '000 kg)	Paper/ cardboard packaging (in '000kg)	Plastics (bottles/containers, plastic sheets/ foams from package material) (in '000kg)	Chemical Waste (in '000kg)	Others (e.g. General Refuse etc.) (in '000m3)
January	0	0	0	0	0	0	0	0	0	0	0.01
February	0	0	0	0	0	0	0	0	0	0	0.00
March	0	0	0	0	0	0	0	0	0	0	0.00
April	0	0	0	0	0	0	0	0	0	0	0.00
May	0	0	0	0	0	0	0	0	0	0	0.00
June	0	0	0	0	0	0	0	0	0	0	0.00
Half-year Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.01**
July	0	0	0	0	0	0	0	0	0	0	0.00
August	0	0	0	0	0	0	0	0	0	0	0.00
September	0	0	0	0	0	0	0	0	0	0	0.00
October	0	0	0	0	0	0	0	0	0	0	0.00
November											
December											
Yearly Total											

APPENDIX D
COMPLAINT LOG

APPENDIX D – COMPLAINT LOG

Reporting Month: October 2011

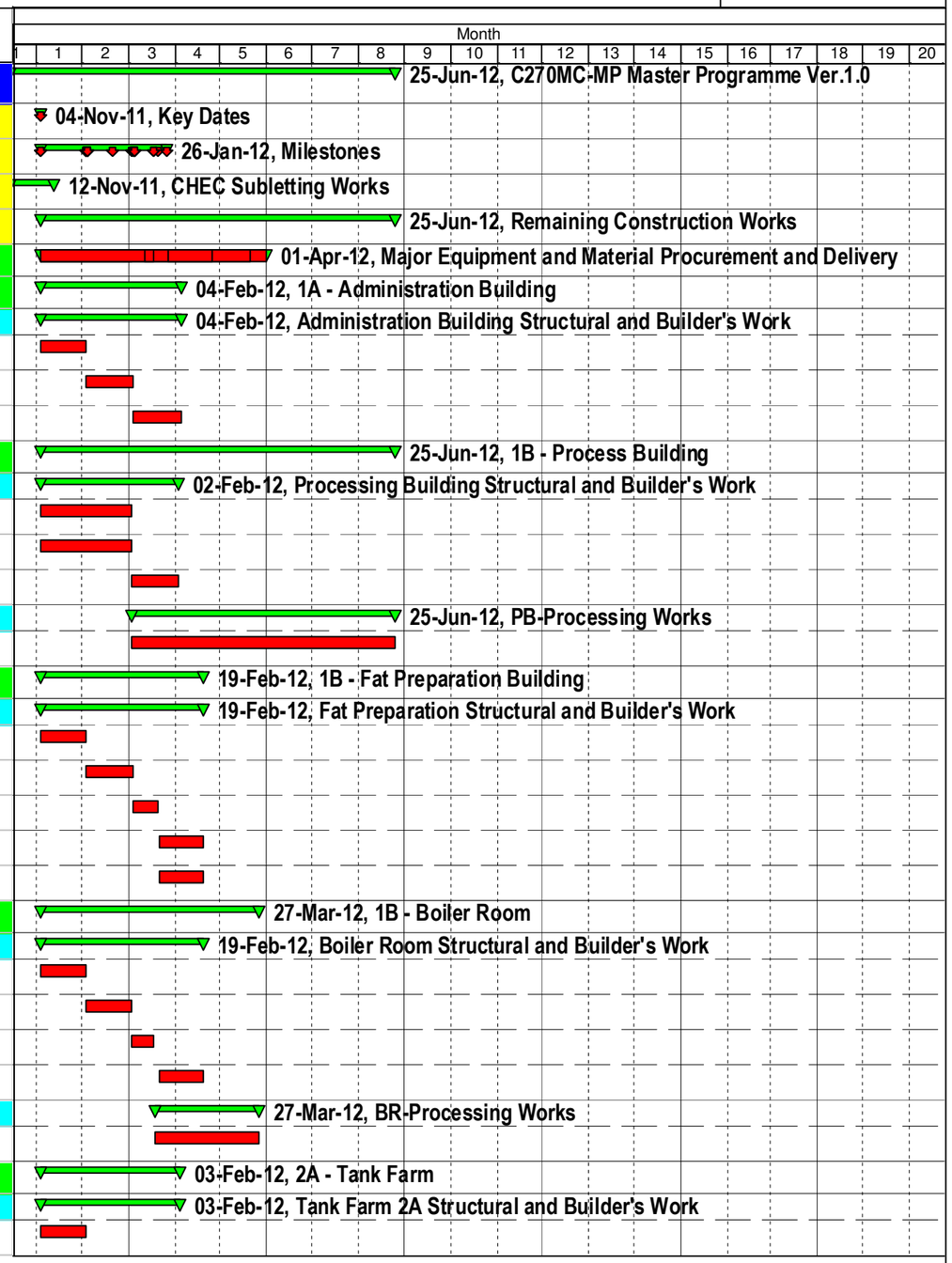
Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
N/A	N/A	N/A	N/A	N/A	N/A

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

APPENDIX E
CONSTRUCTION PROGRAMME

CHINA HARBOUR ENGINEERING COMPANY LIMITED

Activity ID	Activity Name	Duration	Start	Finish
C270MC-MP Master Programme Ver.1.0		182	14-Oct-11	25-Jun-12
Key Dates		0	04-Nov-11	04-Nov-11
Milestones		60	04-Nov-11	26-Jan-12
CHEC Subletting Works		21	14-Oct-11	12-Nov-11
Remaining Construction Works		167	04-Nov-11	25-Jun-12
Major Equipment and Material Procurement and Delivery		106	04-Nov-11	01-Apr-12
1A - Administration Building		66	04-Nov-11	04-Feb-12
Administration Building Structural and Builder's Work		66	04-Nov-11	04-Feb-12
A17000	AB-Superstructure Construction Works upto +10.15mPD (1st Floor)	30	04-Nov-11	03-Dec-11
A17010	AB-Superstructure Construction Works upto +14.17mPD (2nd Floor)	31	04-Dec-11	03-Jan-12
A17020	AB-Superstructure Construction Works upto +17.05mPD (Roof Floor)	32	04-Jan-12	04-Feb-12
1B - Process Building		167	04-Nov-11	25-Jun-12
Processing Building Structural and Builder's Work		65	04-Nov-11	02-Feb-12
A18090	PB-Material procurement	60	04-Nov-11	02-Jan-12
A18100	Primary support modification	60	04-Nov-11	02-Jan-12
A18110	PB-Cladding wall for Processing Building	31	03-Jan-12	02-Feb-12
PB-Processing Works		125	03-Jan-12	25-Jun-12
A17900	PB-BDI Piping, Electrical, Insulation & Instrumentation Works	175	03-Jan-12	25-Jun-12
1B - Fat Preparation Building		76	04-Nov-11	19-Feb-12
Fat Preparation Structural and Builder's Work		76	04-Nov-11	19-Feb-12
A18510	FP-RC superstructure construction works upto +10.4mPD (1st floor)	30	04-Nov-11	03-Dec-11
A18520	FP-RC superstructure construction works upto +15.1mPD (2nd floor)	31	04-Dec-11	03-Jan-12
A18530	FP-RC superstructure construction works upto +20.0mPD (roof floor)	17	04-Jan-12	20-Jan-12
A18600	FP-Fat Preparation Steel Works	30	21-Jan-12	19-Feb-12
A19140	FP-Installation of roof waterproofing system works	30	21-Jan-12	19-Feb-12
1B - Boiler Room		103	04-Nov-11	27-Mar-12
Boiler Room Structural and Builder's Work		76	04-Nov-11	19-Feb-12
A19410	BR-RC superstructure construction works 1st stage	30	04-Nov-11	03-Dec-11
A19420	BR-RC superstructure construction works 2nd stage	30	04-Dec-11	02-Jan-12
A19430	BR-RC superstructure construction works 3rd stage	15	03-Jan-12	17-Jan-12
A20140	BR-Installation of roof waterproofing system works	30	21-Jan-12	19-Feb-12
BR-Processing Works		50	18-Jan-12	27-Mar-12
A19600	BR-BDI Boiler Room & Utility Equipment Installation Works	70	18-Jan-12	27-Mar-12
2A - Tank Farm		66	04-Nov-11	03-Feb-12
Tank Farm 2A Structural and Builder's Work		66	04-Nov-11	03-Feb-12
A20410	2A-1st pour concrete of Tank Farm 2A Footing	30	04-Nov-11	03-Dec-11



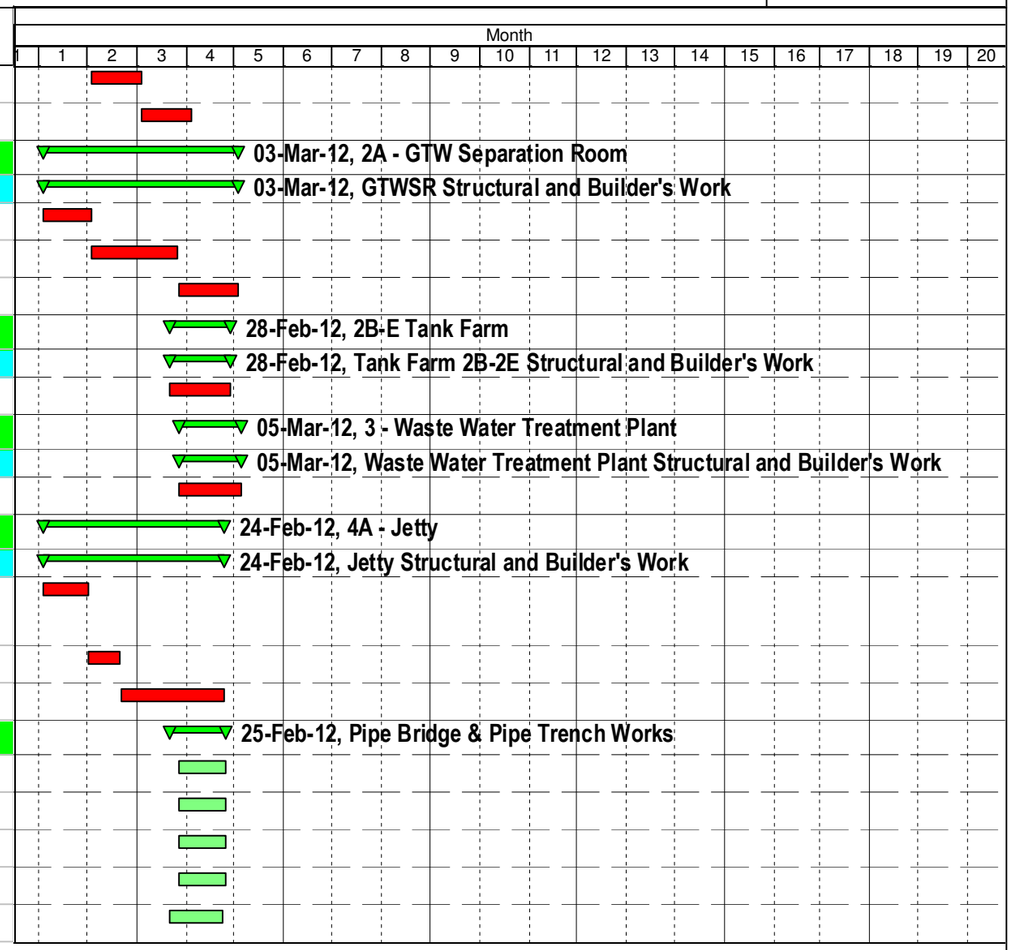
Actual Work
Remaining Work
Critical Remaining Work
Critical Milestone
Milestone
Summary

Proposed Biodiesel Plant at T.K.O.

Master Programme

Date	Revision	Checked	Approved
21-Oct-11	Rev.1		

Activity ID	Activity Name	Duration	Start	Finish
A20420	2A-2nd pour concrete of Tank Farm 2A Footing	31	04-Dec-11	03-Jan-12
A20430	2A-3rd pour concrete of Tank Farm 2A Footing	31	04-Jan-12	03-Feb-12
2A - GTW Separation Room		86	04-Nov-11	03-Mar-12
GTWSR Structural and Builder's Work		86	04-Nov-11	03-Mar-12
A21210	GTWSR-Driving works of all sheet pile for ELS	30	04-Nov-11	03-Dec-11
A21220	GTWSR-Excavation and dewatering system for ELS	54	04-Dec-11	26-Jan-12
A21300	GTWSR-Foundation Construction	37	27-Jan-12	03-Mar-12
2B-E Tank Farm		27	21-Jan-12	28-Feb-12
Tank Farm 2B-2E Structural and Builder's Work		27	21-Jan-12	28-Feb-12
A22410	2BE-Bund wall concreting works 1st stage	39	21-Jan-12	28-Feb-12
3 - Waste Water Treatment Plant		27	27-Jan-12	05-Mar-12
Waste Water Treatment Plant Structural and Builder's Work		27	27-Jan-12	05-Mar-12
A23200	WWTP-Foundation Construction	39	27-Jan-12	05-Mar-12
4A - Jetty		81	04-Nov-11	24-Feb-12
Jetty Structural and Builder's Work		81	04-Nov-11	24-Feb-12
A24100	4A-Temporary works design for Jetty Piling Submission, Approval and Consent	28	04-Nov-11	01-Dec-11
A24105	4A-Temporary works construction	20	02-Dec-11	21-Dec-11
A24120	4A-Construct upto 6 nos of Jetty Bored Piles	65	22-Dec-11	24-Feb-12
Pipe Bridge & Pipe Trench Works		25	21-Jan-12	25-Feb-12
A24900	Pipe Bridge Between Tank Farms	30	27-Jan-12	25-Feb-12
A24910	Erection of steel pipe racks at Tank Farm 2A	30	27-Jan-12	25-Feb-12
A24920	Erection of pipe bridge between Tank Farm 2A and Tank Farm 2B-2E	30	27-Jan-12	25-Feb-12
A24930	Erection of steel pipe racks at Tank Farm 2B-2E	30	27-Jan-12	25-Feb-12
A25000	Pipe Bridge Between PB and FP	34	21-Jan-12	23-Feb-12



Actual Work
Remaining Work
Critical Remaining Work
Critical Milestone
Milestone
Summary

Proposed Biodiesel Plant at T.K.O.

Master Programme

Date	Revision	Checked	Approved
21-Oct-11	Rev.1		