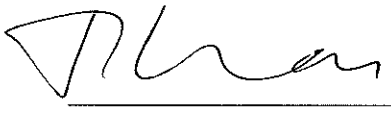
ASB Biodiesel (Hong Kong) Limited

Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate

Quarterly EM&A Summary Report

September 2010 to November 2010

(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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EXECUTIVE SUMMARY

Introduction

1. This is the 6th 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 September 2010 to November 2010.

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

- Structural Steel Works (incl. material transportation, parts assembling, welding, grating installation and painting);
- General site cleaning and tidying;
- Taking measures for preventing mosquito breeding; and
- Site investigation for Jetty Construction.

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, An Environmental Permit No. EP-319/2009 and EP-319/2009/A was issued on 11 March 2009 and 7 April 2009 respectively. Registration of Chemical Waste Producer (WPN-5113-839-C1186-15), Construction Noise Permit (GW-RE0561-09) and Wastewater Discharge License (WT00004508-2009).

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 September, October and November 2010	---	---	---
Notifications of any summons & prosecutions	0	---	N/A	N/A	---

Future Key Issues

6. Major site activities for the coming month will include:

- Administration Building – concrete frame construction;
- Fat Preparation Plant Room and Steam Boiler Room – concrete frame construction;
- GTW Separation Room – ELS & Pump Test & Foundation Inspection;
- Jetty – Pre-drilling; and
- Jetty – Bored Piling.

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 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 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 6th Quarterly EM&A Summary Report summarizing the EM&A works for the Project in from September 2010 to November 2010.

Project Organizations

1.6 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.

1.7 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:

- Structural Steel Works (incl. material transportation, parts assembling, welding, grating installation and painting);
- General site cleaning and tidying;
- Taking measures for preventing mosquito breeding; and
- Site investigation for Jetty Construction.

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 30th September 2010, 22nd October 2010 and 24th November 2010 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
Air Quality	30-09-10	Reminder The contractor was reminded to spray water regularly to avoid dust generate from site.	Water was sprayed regularly at the site.
Waste/ Chemical Management	22-10-10	Reminder Standing water was observed in the drip tray of the generator. The contractor was reminded to clean it to avoid water accumulate.	Standing water in drip tray was cleaned 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 Month

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; and
- Accumulation of C&D waste and general waste on site.

Conclusions

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

3.3 There was no environmental complaint, 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.

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

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
CONTACT DETAILS OF THE PROJECT ORGANISATION

APPENDIX A – Contact Details of the Project Organisation

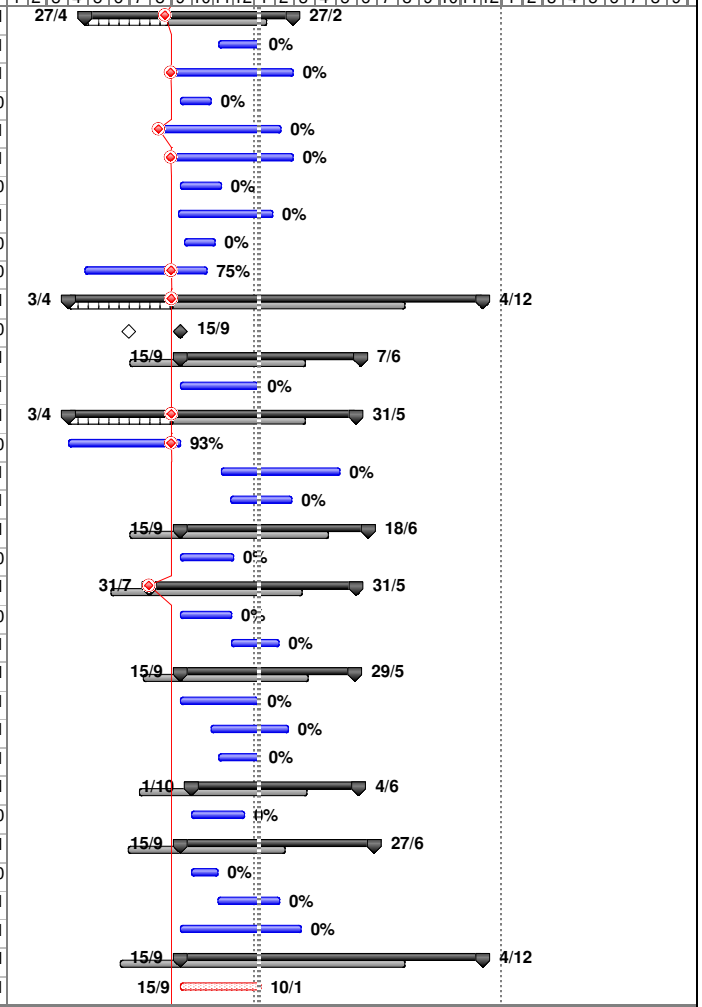
Party	Role	Name	Position	Phone No.	Fax No.
ASB	Permit Holder	Mr. Eddie Chung	Project Manager	9189 8118	37411661
Cinotech	Environmental Team	Dr. HF Chan	ET Leader	2151 2088	3107 1388
		Ms. Ivy Tam	Project Coordinator	2151 2090	
		Mr. Felix Kwan	Audit Team Leader	2151 2077	
Mannings	Independent Environmental 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. Daniel Leung	Environmental Supervisor	9877 4288	

APPENDIX B
CONSTRUCTION PROGRAMME

Proposed Bio-Diesel Plant at T.K.O.T. Lot No. 39 S.Q. ss.1, ss.2 and Ext. thereto Chun Wang Street, TKO Ind. Estate, Kln

Executive Summary (Fixed Jetty With Sea Water Pump House) (Sept 2010 Update)

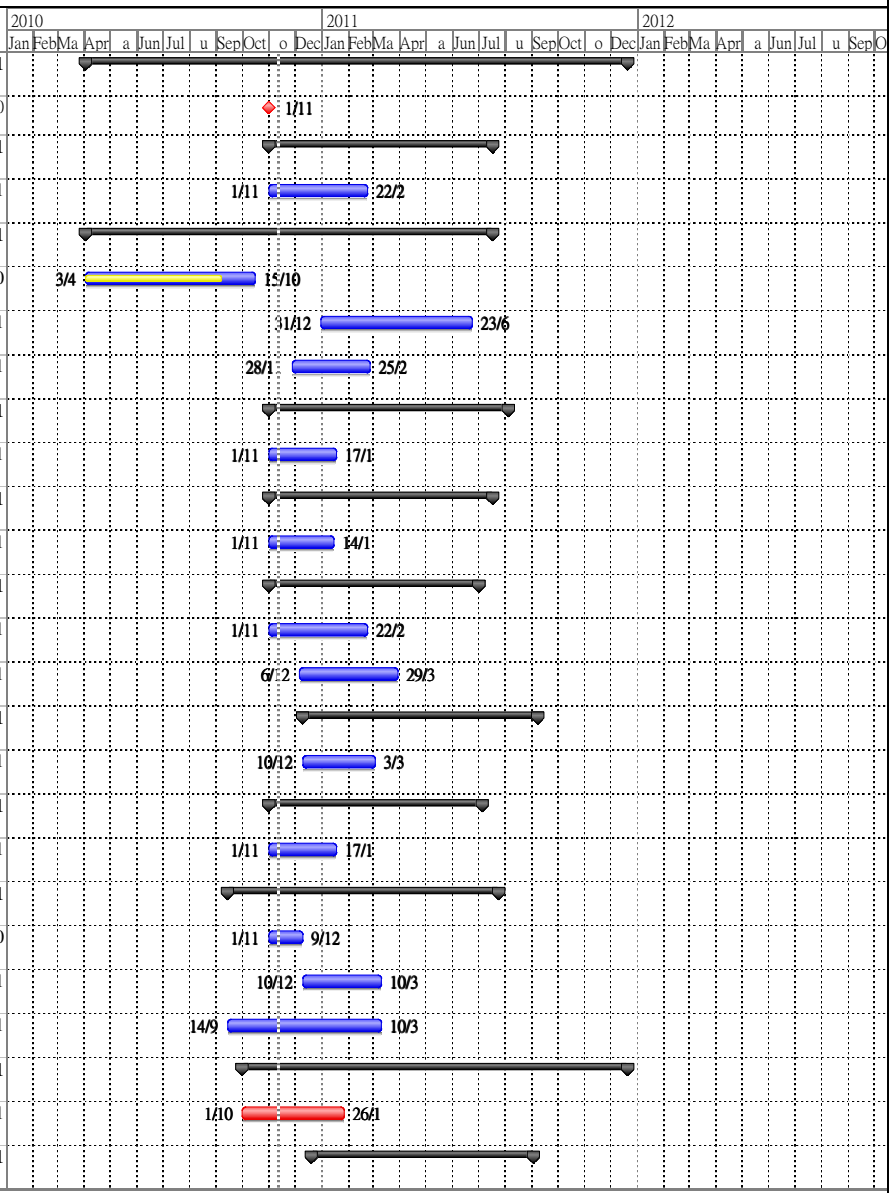
ID	Section	Task Name	Duration	Start	Finish
66	**5**	**Major Equipment and Material Procurement and Delivery**	**307 days**	**Tue 27/4/10**	**Sun 27/2/11**
67	5.1	Procurement of piping Material for Tank Farm	60 days	Wed 10/11/10	Sat 8/1/11
68	5.2	Lift Procurement	180 days	Wed 1/9/10	Sun 27/2/11
70	5.4	Fabrication of Steel Tanks Off-site	45 days	Wed 15/9/10	Fri 29/10/10
71	5.5	GTW Equipment Delivery	180 days	Sat 14/8/10	Wed 9/2/11
72	5.6	WWTP Equipment Delivery	180 days	Wed 1/9/10	Sun 27/2/11
73	5.7	Procurement of piping Material for PB&FP	60 days	Wed 15/9/10	Sat 13/11/10
74	5.8	Procurement of Chimney	139 days	Sun 12/9/10	Fri 28/1/11
75	5.9	Processing Utilities Material Procurement	45 days	Tue 21/9/10	Thu 4/11/10
77	5.11	Delivery of Transformer	180 days	Tue 27/4/10	Sat 23/10/10
78	**6**	**Construction Works**	**611 days**	**Sat 3/4/10**	**Sun 4/12/11**
79	6.1	Recommencement of Works (Postponed from 1 July 10 to 1 Sept. 10)	0 days	Wed 15/9/10	Wed 15/9/10
80	**6.2**	**1A - Administration Building**	**266 days**	**Wed 15/9/10**	**Tue 7/6/11**
81	6.2.1	Superstructure Construction Works	114 days	Wed 15/9/10	Thu 6/1/11
90	**6.3**	**1B - Process Building**	**424 days**	**Sat 3/4/10**	**Tue 31/5/11**
91	6.3.1	Superstructure Construction Works	165 days	Sat 3/4/10	Tue 14/9/10
93	6.3.3	BDI Piping, Electrical, Insulation & Instrumentation Works	175 days	Sun 14/11/10	Sat 7/5/11
94	6.3.4	Building Service Installation Works	90 days	Sun 28/11/10	Fri 25/2/11
99	**6.4**	**1B - Fat Preparation Building**	**277 days**	**Wed 15/9/10**	**Sat 18/6/11**
100	6.4.1	RC Superstructure Construction Works	78 days	Wed 15/9/10	Wed 1/12/10
109	**6.5**	**1B - Boiler Room**	**305 days**	**Sat 31/7/10**	**Tue 31/5/11**
110	6.5.1	RC Superstructure Construction Works	75 days	Wed 15/9/10	Sun 28/11/10
113	6.5.4	BDI Boiler Room & Utility Equipment Installation Works	70 days	Mon 29/11/10	Sun 6/2/11
121	**6.6**	**2A - Tank Farm**	**257 days**	**Wed 15/9/10**	**Sun 29/5/11**
122	6.6.1	Re- commence Foundation Construction incl. Pipe Rack RC Support Wall	114 days	Wed 15/9/10	Thu 6/1/11
124	6.6.3	Tank Erection Works & Pipe Rack Steel Works	114 days	Sat 30/10/10	Sun 20/2/11
125	6.6.4	Procurement of Pipe Materials	60 days	Wed 10/11/10	Sat 8/1/11
144	**6.8**	**2B-E Tank Farm**	**247 days**	**Fri 1/10/10**	**Sat 4/6/11**
145	6.8.1	Containment/Bund Wall Construction	78 days	Fri 1/10/10	Fri 17/12/10
153	**6.9**	**3 - Waste Water Treatment Plant**	**286 days**	**Wed 15/9/10**	**Mon 27/6/11**
154	6.9.1	Foundation Construction	39 days	Fri 1/10/10	Mon 8/11/10
155	6.9.2	Superstructure Construction	91 days	Tue 9/11/10	Mon 7/2/11
156	6.9.3	IC Reactor Fabrication off-site	178 days	Wed 15/9/10	Fri 11/3/11
165	**6.10**	**4A - Jetty**	**446 days**	**Wed 15/9/10**	**Sun 4/12/11**
166	6.10.1	SI and Founding Level determination (Includind BD Submission)	118 days	Wed 15/9/10	Mon 10/1/11



Proposed Bio-Diesel Plant at T.K.O.T. Lot No. 39 S.Q. ss.1, ss.2 and Ext. thereto Chun Wang Street, TKO Ind. Estate, Kln

Programme for License Application Works (Sept 2010 update)

ID	Section	Task Name	Duration	Start	Finish
85	**6**	**Construction Works**	**627 days**	**3/4/10**	**20/12/11**
86	6.1	Recommencement of Works (Postponed from 1 July 10 to 1 Nov 10)	0 days	1/11/10	1/11/10
87	**6.2**	**1A - Administration Building**	**259 days**	**1/11/10**	**17/7/11**
88	6.2.1	Superstructure Construction Works	114 days	1/11/10	22/2/11
97	**6.3**	**1B - Process Building**	**471 days**	**3/4/10**	**17/7/11**
98	6.3.1	Superstructure Construction Works	196 days	3/4/10	15/10/10
100	6.3.3	BDI Piping, Electrical, Insulation & Instrumentation Works	175 days	31/12/10	23/6/11
101	6.3.4	Building Service Installation Works	90 days	28/11/10	25/2/11
106	**6.4**	**1B - Fat Preparation Building**	**277 days**	**1/11/10**	**4/8/11**
107	6.4.1	RC Superstructure Construction Works	78 days	1/11/10	17/1/11
116	**6.5**	**1B - Boiler Room**	**259 days**	**1/11/10**	**17/7/11**
117	6.5.1	RC Superstructure Construction Works	75 days	1/11/10	14/1/11
127	**6.6**	**2A - Tank Farm**	**243 days**	**1/11/10**	**1/7/11**
128	6.6.1	Re- commence Foundation Construction incl. Pipe Rack RC Support Wall	114 days	1/11/10	22/2/11
130	6.6.3	Tank Erection Works & Pipe Rack Steel Works	114 days	6/12/10	29/3/11
137	**6.7**	**2A - GTW Separation Room**	**272 days**	**10/12/10**	**7/9/11**
138	6.7.1	ELS & Pump Test & Formation Inspection	84 days	10/12/10	3/3/11
150	**6.8**	**2B-E Tank Farm**	**247 days**	**1/11/10**	**5/7/11**
151	6.8.1	Containment/Bund Wall Construction	78 days	1/11/10	17/1/11
159	**6.9**	**3 - Waste Water Treatment Plant**	**314 days**	**14/9/10**	**24/7/11**
160	6.9.1	Foundation Construction	39 days	1/11/10	9/12/10
161	6.9.2	Superstructure Construction	91 days	10/12/10	10/3/11
162	6.9.3	IC Reactor Fabrication off-site	178 days	14/9/10	10/3/11
171	**6.10**	**4A - Jetty**	**446 days**	**1/10/10**	**20/12/11**
172	6.10.1	SI and Founding Level determination (Includind BD Submission)	118 days	1/10/10	26/1/11
185	**6.12**	**External Works**	**257 days**	**20/12/10**	**2/9/11**

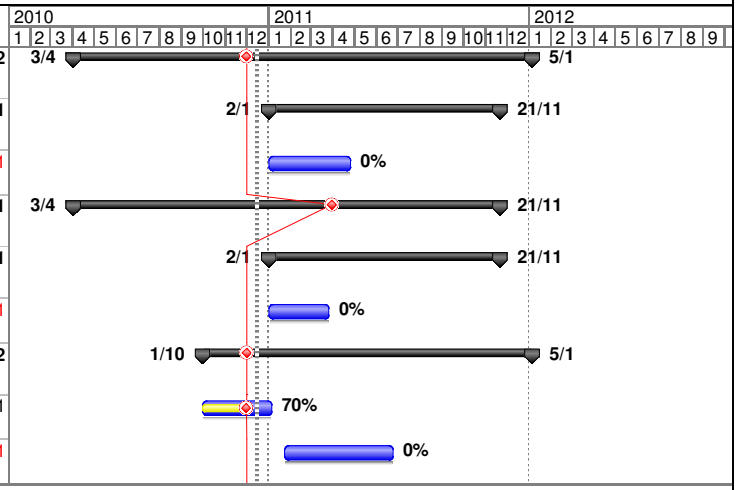


File Name: C250-EP-R02_(Dec 10)_Partial Commencement.mpp
Baseline: C-250-EP-R01_(June 2010)_BC (Date:14 June 2010)

Proposed Bio-Diesel Plant at T.K.O.T. Lot No. 39 S.Q. ss.1, ss.2 and Ext. thereto Chun Wang Street, TKO Ind. Estate, Kln

Master Programme Dec 10 Update (With Partial Recommencement by Jan 11 and Full Remommencement by Apr 11)

ID	Section	Task Name	Duration	Current Start	Current Finish
94	**5**	**Construction Works**	**643 days**	**3/4/10**	**5/1/12**
95	**5.1**	**1A - Administration Building**	**324 days**	**2/1/11**	**21/11/11**
96	5.1.1	Superstructure Construction Works	114 days	2/1/11	25/4/11
105	**5.2**	**1B - Process Building**	**598 days**	**3/4/10**	**21/11/11**
144	**5.6**	**2A - GTW Separation Room**	**324 days**	**2/1/11**	**21/11/11**
145	5.6.1	ELS & Pump Test & Formation Inspection	84 days	2/1/11	26/3/11
177	**5.9**	**4A - Jetty**	**462 days**	**1/10/10**	**5/1/12**
178	5.9.1	SI and Founding Level determination (Includind BD Submission)	97 days	1/10/10	5/1/11
179	5.9.2	Piling Stage 1 (SW Pump House Side)	152 days	24/1/11	24/6/11



APPENDIX C
SUMMARY OF SITE AUDITS

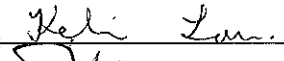
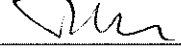
Monthly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	000930
Date	30 September 2010 (Thursday)
Time	15:30 – 16:30

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

Ref. No.	Remarks/Observations	Related Item No.
100930-R01	**A. Water Quality** • No environmental deficiency was identified during site inspection. **B. Air Quality** • The contractor was reminded to spray water regularly to avoid dust generate from site. **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** • No environmental deficiency was identified during site inspection. **G. Others** • Follow-up on previous audit section (Ref. No.:000823), all environmental deficiencies were improved/rectified by contractor.	C5.

	Name	Signature	Date
Recorded by	Kelvin Lau		4 October 2010
Checked by	Dr. HF Chan		4 October 2010

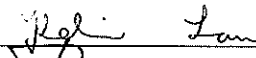
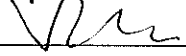
Monthly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	001022
Date	22 October 2010 (Friday)
Time	15:30 – 16:30

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

Ref. No.	Remarks/Observations	Related Item No.
101022-O01	**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** • Standing water was observed in the drip tray of the generator. The contractor was reminded to clean it to avoid water accumulate. **E. Permit / Licenses** • No environmental deficiency was identified during site inspection. **F. Reminders** • No environmental deficiency was identified during site inspection. **G. Others** • Follow-up on previous audit section (Ref. No.:000930), all environmental deficiencies were improved/rectified by contractor.	E8.

	Name	Signature	Date
Recorded by	Kelvin Lau		26 October 2010
Checked by	Dr. HF Chan		26 October 2010

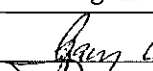
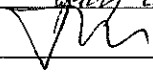
Monthly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	001124
Date	24 October 2010 (Wednesday)
Time	14:30 – 15:30

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** • No environmental deficiency was identified during site inspection. **G. Others** • Follow-up on previous audit section (Ref. No.:001022), all environmental deficiencies were improved/rectified by contractor.	

	Name	Signature	Date
Recorded by	Gary Lau		30 November 2010
Checked by	Dr. HF Chan		30 November 2010

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 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-RE0561-09	10/12/2009	26/11/2010	Use of Powered Mechanical Equipment during 0000-2400 hours on general holidays (including Sundays), 0000-0700 hours on any day not being a general holiday.	Valid
Wastewater Discharge License				
WT00004508-2009	07/09/2009	-	-	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	• 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
	<u>Sewage generated from On-site Workforce</u> • 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 F
COMPLAINT LOG

APPENDIX F – COMPLAINT LOG

Reporting Quarter: September 2010 to November 2010

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.