# ASB Biodiesel (Hong Kong) Limited

# **Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate**

Monthly EM&A Report January 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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To:	Cinotech	Date:	15 February 2013	
Attn:	Ms. Ivy Tam / Ms. Betty Choi	Fax:	3107 1388	
From:	Mr. Mark Cheung	Ref:	D1067/H00619	
Job No.	D1067	Total Pages:	1	
Subject:	Development of a Biodiesel Plant at Tseung Kwan O Industrial Estate Monthly EM&A Summary Report for January 2013			

Dear Madam,

We refer to your submission of the Monthly EM&A Report for January 2013 via email dated 15 February 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 44<sup>th</sup> 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 January 2013.
- 2. The major site activities undertaken in the reporting month included:
  - General site cleaning and tidying.
  - Zone 1A Administration Building Finishing work
  - Zone 1A Administration Building Windows, louver and doors installation work
  - Zone 1B Processing Building Cladding system installation work
  - Zone 1B Processing 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 Equipment installation work
  - Zone 2A Tank Farm Steel tank fabrication work
  - Zone 2A Tank Farm Tank cladding installation work
  - Zone 2A GTWSR Equipment installation work
  - Zone 2B-2E Tank Farm Steel tank fabrication work
  - WWTP Roof system installation work
  - WWTP Equipment installation work
  - Jetty Temporary Platform Dismantle 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

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

# **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	Eve	ent Details	Action Taken	Status	Remark	
Event	Number	Nature	Action Taken	Status	Kemark	
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 December 2012	Submitted to EPD on 15 January 2012	Verified by IEC		
Notifications of any summons & prosecutions	0		N/A	N/A		

# **Future Key Issues**

- 6. Major site activities for the coming three months will include:
  - General site cleaning and tidying.
  - Zone 1A Administration Building Finishing works
  - Zone 1B Steam Boiler Room ABWF works excluding windows, louvers and doors
  - Tank Farm 2A Pipe installation work
  - Tank Farm 2A Bund wall finishing work
  - Tank Farm 2A GTWSR Equipment and pipe installation works
  - Tank Farm 2A GTWSR ABWF works excluding windows, louvers and doors
  - Tank Farm 2B-2E Tank fabrication works
  - Tank Farm 2B-2E Finishing works
  - WWTP ABWF works excluding windows, louvers and doors
  - Jetty Deck superstructure construction works
  - Pipe Bridge Pipe bridge erection work
  - 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 Cable laying work
- External Works Pavement work
- 7. The future environmental concerns are air quality, water 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 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 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. A VEP was submitted and an amended EP (No. EP-319/2009/B) was issued by EPD on 31 Jan 2013.
  - 1.6 Cinotech Consultants Limited was commissioned by the Contractor to undertake the Environmental Monitoring and Audit (EM&A) works for the Project. This is the 44<sup>th</sup> Monthly EM&A report summarizing the EM&A works for the Project in January 2013.

# **Project Organizations**

- 1.7 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.
- 1.8 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	
		Dr. HF Chan	ET Leader	2151 2088		
Cinotech	Environment al Team	Ms. Ivy Tam	Project Coordinator	2151 2090	3107 1388	
		Ms. Betty Choi	Audit Team Leader	2151 2072		
	Independent Environment al Checker	Mr. Mark Cheung	Independent Environmental Checker	3168 2028		
Mannings		Mr. Gavin Kwok	Assistant to Independent Environmental Checker	3168 2028	3168 2022	
AECOM	Project Manager	Mr. Matthew Lau	Construction Manager	9363 5586	N/A	
		Mr. Peter Chung	Project Manager	9471 2438		
CHEC	Contractor	Mr. Anson Wong	Safety and Environmental Officer	9656 3837	2623 9226	
		Mr. Simon Li	Environmental Supervisor (Ass. Planning Engineer)	6152 7867		

# **Construction Programme**

- 1.10 The site activities undertaken in the reporting month were:
  - General site cleaning and tidying.
  - Zone 1A Administration Building Finishing work
  - Zone 1A Administration Building Windows, louver and doors installation work
  - Zone 1B Processing Building Cladding system installation work
  - Zone 1B Processing 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 Equipment installation work
  - Zone 2A Tank Farm Steel tank fabrication work
  - Zone 2A Tank Farm Tank cladding installation work
  - Zone 2A GTWSR Equipment installation work
  - Zone 2B-2E Tank Farm Steel tank fabrication work
  - WWTP Roof system installation work
  - WWTP Equipment installation work
  - Jetty Temporary Platform Dismantle 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

#### **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 16<sup>th</sup> January 2013 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 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

Downit / Ligares No	Valid Period		Doto!!c	Status
Permit / License No.	From	To	Details	Status
Environmental Permit (EP	<u>'</u> )			
EP-319/2009/A	07/04/2009	N/A	Construction and operation of	Valid
			(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 transhipment 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.	
Registration of Chemical V	Vaste Produce	r	,	
WPN-5113-839-C1186-15	12/06/2009	-	Spent Lubrication oil.	Valid
<b>Construction Noise Permit</b>	(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 Lice	ense			
WT00004508-2009	07/09/2009	-	Discharge of wastewater from construction site including wheel washing water and chemical precipitation tank	Valid
Billing Account for Disposa	al of Construct	tion Waste	<u> </u>	
A/C No.: 7013917	-	-	-	Valid
	A DCC	1		
<b>Notification of Works under</b>	er APCO			

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	<b>Observations and Recommendations</b>	Follow-up
Water Orgalita	16/01/2013	Sand Bag should be placed along the	Follow up action was taken
		waterfront.	by the Contractor.
Water Quality	10/01/2013	Ponding water should be removed or added	Follow up action was taken
		with larvicidal oil.	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 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 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;
  - Accumulation of C&D waste and general waste on site.

# **Construction Program for the Next Months**

- 3.2 A tentative construction programme is provided in **Appendix E**. The major construction activities in the coming three months will include:
  - General site cleaning and tidying.
  - Zone 1A Administration Building Finishing works
  - Zone 1B Steam Boiler Room ABWF works excluding windows, louvers and doors
  - Tank Farm 2A Pipe installation work
  - Tank Farm 2A Bund wall finishing work
  - Tank Farm 2A GTWSR Equipment and pipe installation works
  - Tank Farm 2A GTWSR ABWF works excluding windows, louvers and doors
  - Tank Farm 2B-2E Tank fabrication works
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  - Building Services Lift installation work
  - External Boundary wall construction work
  - External Works Storm water drainage work
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  - External Works Plumbing laying work
  - External Works Fire Services piping laying work
  - External Works Cable laying work
  - External Works Pavement work

#### 4 CONCLUSIONS AND RECOMMENDATIONS

#### **Conclusions**

- 4.1 Environmental audit works were conducted in the reporting month. Site inspections were conducted on monthly basis. The results were reviewed and checked.
- 4.2 1 environmental complaint was received. There was no prosecution or notification of summons.

#### Recommendations

4.3 According to the environmental audit performed in the reporting month, 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 clear the drainage channel regularly to prevent blockage.
- To set up silt curtain around marine piling work.

# **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.

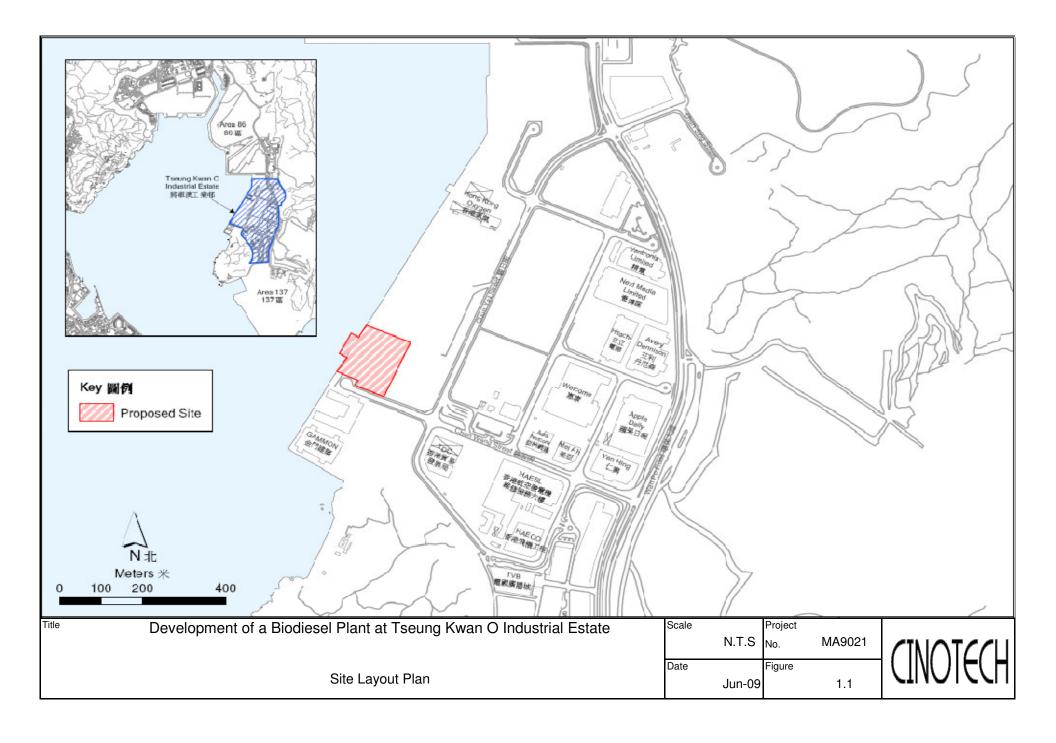
#### Noise Impact

- 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**



# APPENDIX A SITE AUDIT SUMMARY

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

# Monthly Site Inspection Record Summary

**Inspection Information** 

Checklist Reference Number	130116	
Date	16 January 2013 (Wednesday)	
Time	15:45 – 16:30	

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

# Related Item Ref. No. Remarks/Observations No. A. Water Quality B2 130116-R01 • Sand Bag should be placed along the waterfront. • Ponding water should be removed or added with larvicidal oil. B13 130116-R02 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.:121205): • Environmental deficiency 121205-R01 was improved/rectified by the Contractor.

	Name	Signature	Date
Recorded by	Betty Choi	Bettyfurt	17 January 2013
Checked by	Dr. HF Chan	Men	17 January 2013

CINOTECH MA9021 130117

APPENDIX B UPDATED ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

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

Types of Impacts	Mitigation Measures	Status
	• 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;	^
	<ul> <li>All debris and materials will be covered or stored in a sheltered debris collection area;</li> </ul>	^
Construction Dust	<ul> <li>Hoarding from ground level will be provided along the entire length of the site boundary except for a site entrance or exit;</li> <li>Every stockpile of dusty materials will be covered entirely by impermeable sheeting or placed in an area sheltered on the top and the 2 sides.</li> </ul>	^
	<ul><li>and the 3 sides;</li><li>Regular maintenance and checking of the diesel powered mechanical equipment will be adopted to avoid any black smoke</li></ul>	^
	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.	^
	Only well-maintained plant will be operated on-site and plant will be serviced regularly during the construction program;	٨
	• Silencers or mufflers on construction equipment will be utilized and will be properly maintained during the construction program;	^
	<ul> <li>Mobile plant, if any, will be sited as far from NSRs as possible;</li> </ul>	^
Construction	<ul> <li>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;</li> </ul>	٨
Noise	• 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	٨
	<ul> <li>Material stockpiles and other structures will be effectively utilised, wherever practicable, in screening noise from onsite construction activities.</li> </ul>	^

Compliance of mitigation measure; Remarks: ^

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
	• 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.  Construction Site Run-off and Drainage	^
Water Quality	<ul> <li>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.</li> <li>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.</li> <li>Exposed soil surfaces will be protected by paving or fill material as soon as possible to reduce the potential of soil erosion.</li> <li>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.</li> </ul>	^ ^
	<ul> <li>General Construction Activities</li> <li>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.</li> <li>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.</li> </ul>	^

Compliance of mitigation measure; Remarks: ^

X Non-compliance of mitigation measure;

N/A Not Applicable at this stage;

\* 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
	Sewage generated from On-site Workforce	
	<ul> <li>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> <li>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.</li> </ul>	^
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.	۸

<sup>^</sup> 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 Monthly Summary Waste Flow Table For Contract 270 Biodiesel Plant Tseung Kwan O Project Reporting Year: <u>2013</u>

	Actual	l Quantities of Iner	rt C&D Materia	als Generated / Im	Actual Quantities of Other C&D Materials / Wastes Generated						
Month	Total Quantities Generated [a+b+c+d]	Broken Concrete (including rock for recycling into aggregates) (a)	Reused in the Contract	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	0.005
February											
March											
April											
May											
June											
Half-year Total											
July											
August											
September											
October											
November											
December											
Yearly Total											

# APPENDIX D COMPLAINT LOG

# APPENDIX D - COMPLAINT LOG

**Reporting Month**: January 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 <sup>rd</sup> 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 <sup>th</sup> 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 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

# APPENDIX E CONSTRUCTION PROGRAMME

ity ID	Activity Name	BL Start	BL Finish	Current	Current Start	Current	0/	Dolov	Total		2012		2013
טו נאַ	Activity Name	DL Start	DL FINISH	Duration	Current Start	Finish	% Complete	Delay from Initial	Float	0 N D		ASOND	J F M A M
270MC-3I	M-Rolling Programme Ver.2.0 (010213)	03-Jan-12	12-Dec-12	146	05-Jan-13 A	31-May-13		-169	374			<b>+</b>	
	Construction Works	03-Jan-12	12-Dec-12	146	05-Jan-13 A	31-May-13		-169	374			<b>—</b>	-
_	stration Building	21-May-12	19-Jul-12	72	28-Jan-13 A	09-Apr-13		-264	-178				09-A
	ion Building Structural and Builder's Work		70 00 72	30	30-Jan-13 A	28-Feb-13			-212				28-Feb-13
A17435	AB-ABWF works excluding windows, louvers & doors 2nd Stag	e		30	30-Jan-13 A	28-Feb-13	6.67%		-212				AB-ABWF
AB-Plumbin	ng and Drainage	21-May-12	19-Jul-12	72	28-Jan-13 A	09-Apr-13		-264	-178				09-A
A17155	AB-Installation of sanitary fittings	21-May-12	19-Jul-12	72	28-Jan-13 A	09-Apr-13	10%	-264	-178				AB-Ir
B - Process	· · ·	03-Jan-12	30-Sep-12	135	05-Jan-13 A	19-May-13		-231	-49			₩	
	ng and Drainage	05-Mar-12	30-Sep-12	101	05-Jan-13 A	15-Apr-13		-197	-154				15-7
A18010	PB-BS Piping works (Plumbing)	05-Mar-12	18-Apr-12	50	05-Jan-13 A	23-Feb-13	50%	-311	-154				PB-BS Pipi
A18025	PB-Installation of sanitary fittings	03-Jun-12	01-Aug-12	21	23-Feb-13	16-Mar-13	0%	-227	-154				PB-Insta
A18300	PB-BS Plumbing and Drainage Testing	02-Aug-12	30-Sep-12	30	16-Mar-13	15-Apr-13	0%	-197	-154				PB-
PB-Electrica		19-Apr-12	02-Sep-12	108	19-Jan-13 A	06-May-13		-246	-145				• · · · · · · · ·
A18040	PB-BS Cable laying works(Electrical) 2nd stage	19-Apr-12	02-Jun-12	45	19-Jan-13 A	04-Mar-13	30%	-275	-145				PB-B\$ Ca
A18055	PB-BS Electrical Testing	05-Jul-12	02-Sep-12	60	07-Mar-13	06-May-13	0%	-246	-145				,
PB-MVAC		05-Jul-12	02-Sep-12	60	21-Mar-13	19-May-13		-259	-49				<u> </u>
A18065	PB BS MVAC Testing	05-Jul-12	02-Sep-12	60	21-Mar-13	19-May-13	0%	-259	-49				
PB-Fire Serv	vices			45	10-Feb-13	27-Mar-13			-156				27-Ma
A18082	PB-BS Final connection works			45	10-Feb-13	27-Mar-13	0%		-156				PB-BS
PB-Processi	ing Works	03-Jan-12	26-Jun-12	90	01-Feb-13	01-May-13		-309	-152				0
A17900	PB-BDI Pipe insulation, Process Electrical & Instrumentation Wo	orks 03-Jan-12	26-Jun-12	90	01-Feb-13	01-May-13	0%	-309	-152		·		P
B - Fat Pre	paration Building	13-Apr-12	10-Sep-12	75	01-Feb-13	17-Apr-13		-218	282				▼ 17-
FP-Plumbin	ng and Drainage	02-Aug-12	10-Sep-12	40	01-Feb-13	12-Mar-13		-183	-120				12-Mar-
A19055	FP-Installation of sanitary fittings	02-Aug-12	31-Aug-12	30	01-Feb-13	02-Mar-13	0%	-183	-120				FP-Install
A19200	FP-BS Plumbing and Drainage Testing	02-Aug-12	10-Sep-12	30	11-Feb-13	12-Mar-13	0%	-183	-120				FP-BS F
FP-Electrica	al Control of the Con	02-Aug-12	10-Sep-12	40	08-Mar-13	17-Apr-13		-218	-125				17-
A19090	FP-BS Electrical Testing	02-Aug-12	10-Sep-12	40	08-Mar-13	17-Apr-13	0%	-218	-125				FP.
FP-Fire Serv	vices	02-Aug-12	10-Sep-12	40	04-Mar-13	13-Apr-13		-215	-122				13-7
A19300	FP-Fire Service Testing	02-Aug-12	10-Sep-12	40	04-Mar-13	13-Apr-13	0%	-215	-122				FP-
FP-Processi	ing Works	13-Apr-12	07-Jun-12	56	07-Feb-13	03-Apr-13		-300	295				▼ 03-A
A18900	FP-BDI Pipe insulation, Process Electrical & Instrumentation Wo	orks 13-Apr-12	07-Jun-12	56	07-Feb-13	03-Apr-13	0%	-300	295				FP-B
B - Boiler R	Room	21-Jan-12	30-Sep-12	109	07-Jan-13 A	25-Apr-13		-207	409			•	25
Boiler Room	n Structural and Builder's Work	21-Jan-12	30-Sep-12	40	07-Jan-13 A	15-Feb-13		-138	46			<b>→</b>	15-Feb-13,
A20120	BR-Installation of windows, louvers and doors 2nd stage	01-Sep-12	30-Sep-12	40	07-Jan-13 A	15-Feb-13	50%	-138	44				BR-Installat
A20140	BR-Installation of roof waterproofing system works	21-Jan-12	19-Feb-12	0	08-Jan-13 A	08-Jan-13 A	100%	-323					BR-Installation of
BR-Plumbin	ng and Drainage	02-Aug-12	31-Aug-12	51	07-Feb-13	29-Mar-13		-210	-137		· · · · · · · · · · · · · · · · · · ·		29-Ma
A20055	BR-Installation of sanitary fittings	02-Aug-12	31-Aug-12	30	07-Feb-13	08-Mar-13	0%	-189	-137				BR-Insta
A20200	BR-BS Plumbing and Drainage Testing	02-Aug-12	22-Aug-12	21	09-Mar-13	29-Mar-13	0%	-219	-137				■ BR-BS
BR-Electrica	al	03-Jun-12	31-Aug-12	69	05-Feb-13	14-Apr-13		-226	-144				14-7
A20030	BR-BS Cable laying works(Electrical) 1st stage	03-Jun-12		30	05-Feb-13	06-Mar-13	0%	-247	-144				BR-BS C
A20040	BR-BS Cable laying works(Electrical) 2nd stage	03-Jul-12	01-Aug-12	30	07-Mar-13	05-Apr-13	0%	-247	-144				BR-B
A20050	BR-Lighting installation works	02-Aug-12	31-Aug-12	30	07-Mar-13	05-Apr-13	0%	-217	-144				BR-L
A20061	BR-BS Final connection works(Electrical)			28	18-Mar-13	14-Apr-13	0%		-144				■ BR-
BR-Fire Serv	vices	03-Jul-12	01-Aug-12	80	05-Feb-13	25-Apr-13		-267	-65				25
A20080	BR-BS Sprinkler installation works(Fire Services)	03-Jul-12	01-Aug-12	30	05-Feb-13	06-Mar-13	0%	-217	-65				BR-BS S
A20100	BR-BS Cable laying works (Fire Services)			30	07-Mar-13	05-Apr-13	0%		-65				BR-B
	♦ Milestone	Proposed Bio-Diesel Plant at	TKO Lot	39 Main Ca	ontract for All D	emaining Wor	ks		Date		Revision	Checked	d Approved
Actual V	<b>I</b>	1 Toposed Bio-Diesei I idili di	1.1x.O. LUI .	,, iviaili C	ontract for All K	maning WOI	r.o	01-Fe		3 Month Rollin	ng Update Programme		
	ning Work	3 Month Rolling P	rogramm	e (Jan 20	)13) for EM <i>8</i>	A Report							
	ning work Remaining Work	5 Month Ronnig I	- 081 ammil	- (oun #(	, 10, 101 121110	report							

➡ Baseline Milestone

Page 4 of 4
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Ac	ivity ID	Activity Name	BL Start	BL Finish	Current Duration	Current Start	Current Finish	% Complete	Delay from Initial	Total Float	2012 2013 O N D J F M A M J Jul A S O N D J F M A M J
	A25530	Boundary Wall-ABWF works	04-Nov-12	12-Dec-12	39	01-Feb-13	11-Mar-13	0%	-89	-192	Boundary Wa
	Water Supply	Works	01-Jul-12	16-Sep-12	78	13-Feb-13	01-May-13		-227	-170	01-Ma
	A25700	WSD pipe laying Works	01-Jul-12	16-Sep-12	78	13-Feb-13	01-May-13	0%	-227	-170	WSD WSD
	Works for CLI	Energization Energization	02-Aug-12	31-Aug-12	30	07-Mar-13	05-Apr-13		-217	-144	05-Apr-13
	A20060	BR-BS installation of switch board and cable termination works in Switch Rooms	02-Aug-12	31-Aug-12	30	07-Mar-13	05-Apr-13	0%	-217	-144	BR-BS ins

□□□ 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 Progr	amme (Jan 2013) for EM&A Report	
2 Midhili Kulling i Tugi	annie (Jan 2013) for Envice A Report	

Date	Revision	Checked	Approved
01-Feb-13	3 Month Rolling Update Programme		