





Permanent Aviation Fuel Facility (EP-262/2007)

Third Quarterly Environmental Monitoring and Audit Report – July 2007 to September 2007

20th October 2007

Environmental Resources Management

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Permanent Aviation Fuel Facility for Hong Kong International Airport

Environmental Certification Sheet EP-262/2007

Reference Document/Plan

Document/Plan-to be-Certified/ Verified:

Third Quarterly EM&A Report July 2007 to September 2007

Date of Report:

15th October 2007

Date received by ET:

15th October 2007

Date received by IEC:

15th October 2007

Reference EM&A Manual Recommendation

EM&A Manual Recommendation:

Sections 13.5 and 13.5.3

Content:

EM&A Reports

13.5 A maximum of 4 copies of each EM&A Report shall be submitted

13.5.3 The ET Leader will submit Quarterly EM&A Summary Reports for the construction phase EM&A works only.

ET Certification

I hereby certify that the above referenced document/plan complies with the above referenced sections of the EM&A Manual recommendation

Craig A Reid, Environmental

Team Leader:

Date:

18th October 2007

IEC Verification

I hereby verify that the above referenced document/plan complies with the above referenced sections of the EM&A Manual recommendation

Dr Guiyi Li, Independent Environmental Checker: Men' Brew

Date: 7/11/07

Notes: EP-262/2007 has replaced the former EP-139-2002/A for the PAFF project after the resubmission of revised EIA Report.

REPORT

Permanent Aviation Fuel Facility (EP-262/2007) Third Quarterly Environmental Monitoring and Audit Report July 2007 to September 2007

20th October 2007

Prepared by: Bill Tsang/Craig A Reid

Document Code: 0018105_EM&AR_Oct 07.doc

For and on behalf of

Environmental Resources Management

Approved by: Craig A Reid

Signed:

Position: Environmental Team Leader

Date: 20th October 2007

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CONTENTS

	EXECUTI	VE SUMMARY	j
1	INTRODU	ICTION	1
1.1	Purpose (OF THE REPORT	1
1.2	KEY CONT	ACT INFORMATION	2
2	ENVIRON	NMENTAL STATUS	ź
2.1	Project A	AREA	3
2.2	ENVIRONA	MENTAL SENSITIVE RECEIVERS	ŝ
2.3	Major Co	ONSTRUCTION ACTIVITIES	ŝ
2.4	MONITOR	ING SCHEDULE OF THE REPORTING PERIOD	Ê
2.5	STATUS OF	F ENVIRONMENTAL APPROVAL DOCUMENTS	ŝ
2.6	Communi	TY LIAISON GROUP MEETING	4
2.7		OF NON-COMPLIANCE WITH THE ENVIRONMENTAL QUALITY ANCE LIMITS	5
3	ENVIRON	NMENTAL ISSUES AND ACTIONS	ť
3.1	Previous	ENVIRONMENTAL DEFICIENCIES AND FOLLOW-UP ACTIONS	ć
3.2	IMPLEMEN	ITATION STATUS ON ENVIRONMENTAL PROTECTION REQUIREMENTS	7
3.3	ENVIRONA	MENTAL MONITORING	7
4	FUTURE :	KEY ISSUES AND CONCLUSION	g
4.1	Key Issue	S FOR THE NEXT REPORTING PERIOD	g
4.2	Імраст Рі	REDICTION FOR THE NEXT REPORTING PERIOD	g
4.3	Works an	ND MONITORING SCHEDULE FOR THE NEXT REPORTING PERIOD	g
4.4	Conclusi	ON	g
	LIST OF T	TABLES	
		Contact Information	
	Table 2.1	Summary of Works Undertaken During the Reporting Period	
	Table 2.2	Summary of Environmental Licensing, Notification and Permit Status	
	Table 3.1	Environmental Deficiencies (Observations) from Site Inspections during Reporting Period	3
	Table 3.2	Results of Water Discharge Sampling	
	LIST OF A		
	Annex A	Water Quality Monitoring Stations, Water Quality and Ecological Sensitive Receivers	al
	Annex B	Project Location	
	Annex C	Implementation Programme of Mitigation Measures	
	Annex D	Cumulative Complaints Statistics	

EXECUTIVE SUMMARY

The construction works for the Permanent Aviation Fuel Facility resumed on 9th July 2007. This **third** quarterly Environmental Monitoring and Audit (EM&A) report presents the EM&A works carried out during the period from 9th July to 30th September 2007 in accordance with the EM&A Manual.

Breaches of all Action and Limit Levels

No breaches of action or limit levels occurred during the reporting period as no monitoring was undertaken.

Complaint Log

No environmental complaint was received during the reporting period.

Notifications of any Summons and Successful Prosecutions

No environmental summon or prosecutions was received in this reporting period.

Reporting Changes

There were no reporting changes in the reporting period.

Future Key Issues

- Arrangements for Baseline Water Quality Monitoring for the commencement of dredging works;
- Capability of temporary drainage system to properly collect, treat and dispose of site runoff;
- Dust release and suppression.

1 INTRODUCTION

Leighton Contractors (Asia) Limited (LCAL) has appointed ERM-Hong Kong, Limited (ERM) as the Environmental Team (ET) to implement the Environmental Monitoring and Audit (EM&A) programme for the Permanent Aviation Fuel Facility (the Project) during construction works.

The construction works for PAFF commenced in November 2005 based upon the previous EIA (EIAO Register Number AEIAR-062-2002) conducted and the Environmental Permit EP-139/2002 granted on the 28th August 2002. Due to minor changes to the detailed layout of the site and the site boundary, application for Variation to the Environmental Permit (VEP) (VEP-133/2004) was submitted to the Director of Environmental Protection (DEP) for approval. The variation to the EP (EP-139/2002/A) was granted by EPD in February 2004.

However, the decision by EPD to grant the above Environmental Permit was subject to a Judicial Review. The Judicial Review sided in the favour of the DEP, as did the subsequent Judgement from the Court of Appeal from the High Court for Judicial Review in March 2005. However, the DEP's decision to grant the EP was quashed by the Judgement of the Court of Final Appeal of July 2006.

The construction works were stopped following the Judgement of the Court of Final Appeal of July 2006. As such, in order to continue with the construction of the project, the project went through the statutory procedures under the EIAO again with a new design in order to obtain an environmental permit. The revised EIA was submitted in 2007 and the environmental permit (EP-262/2007) was granted in May 2007.

The construction works and EM&A requirements resumed on 9th July 2007 following the latest requirements of the EP-262/2007 and EM&A Manual. Details regarding the EM&A requirements and changes should refer to the updated EM&A Manual. For the marine works, all piling activities were completed before the previous suspension of construction works in 2006.

1.1 PURPOSE OF THE REPORT

This is the **third** EM&A Report which summarizes the monitoring results and audit findings for the EM&A programme during the reporting period from 9th July to 30th September 2007.

1.2 KEY CONTACT INFORMATION

Key contact information of the Project is presented in *Table 1.1*.

Table 1.1Contact Information

Name	Position	Telephone	Facsimile	E-mail
Airport Author	ity Hong Kong – E	Environmental F	ermit Holder	
Mr Amin Ebrahim	Assistant General Manager Aviation Logistics	2183 3108	2824 2786	ebraa@hkairport.com
Contractor – Le	ighton (Asia) Cons	struction Limite	d	
Brian Gillon	Project Director	2823 1111	2529 8784	brian.gillon@leightonasia.com
Franchisee's Sit	e Representative -	- ECO Aviation	Fuel Develop	ment Limited
Philip Siu	Franchisee's Site Representative	2963 2820	2563 6311	philip.siu@towngas.com
Environmental	Team – ERM-Hon	g Kong Limited	l	
Craig Reid	Environmental Team Leader	2271 3000	2723 5660	Craig.reid@erm.com
Independent Er	nvironmental Che	cker – Hyder Co	onsulting Limi	ited
Dr Guiyi Li	Independent Environmental Checker	2911 2233	2805 5028	guiyi.li@hyder.com.hk

2 ENVIRONMENTAL STATUS

2.1 PROJECT AREA

The project area is in Area 38 of Tuen Mun and the pipelines are located in Urmston Road between Tuen Mun Area 38 and Sha Chau. The site is illustrated in *Annex B*.

2.2 Environmental Sensitive Receivers

No air and noise sensitive receivers were identified close to the project area. However, water sensitive receivers and ecological sensitive receivers were identified in the EIA study, and are shown in *Annex A*.

2.3 MAJOR CONSTRUCTION ACTIVITIES

A summary of the major works undertaken in this reporting period is shown in *Table 2.1*.

Table 2.1 Summary of Works Undertaken During the Reporting Period

Area	Works undertaken
Tuen Mun Area 38	Tank Farm and Bund Wall Construction
	Permanent Drainage Construction
	Operational & Fire Services Buildings Construction
	Minor Jetty Works (Non-piling)
	Site Investigation

2.4 MONITORING SCHEDULE OF THE REPORTING PERIOD

No monitoring was conducted during the reporting period. Water monitoring is expected to commence towards October 2007.

2.5 STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS

A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project since July 2007 is presented in *Table* 2.2.

Table 2.2 Summary of Environmental Licensing, Notification and Permit Status

Permit/ Licenses/ Notification	Reference	Validity Period	Remarks
Environmental Permit	EP-262/2007	Throughout Project	Issued on 31 May 2007 (EP-139/2002 originally granted on 28 August 2002 and EP-139/2002/A granted on 24 February 2004 were superseded)
Chemical Waste Producer Registration	WPN 5111-421-L2174- 25	Throughout Project	Issued on 10 November 2005
Notification of Construction Works under Air Pollution Control (Construction Dust) Regulation	H2104/U1D/5542/D G/DH/PL	Throughout Project	Notification on 6 July 2007
Construction Noise Permit	GW-RW0372-07	25 July 2007 to 24 January 2008	For air compressors, breakers, excavators, wheeled loaders, mobile cranes, concrete lorry mixers, hand-held pokers, bar benders/cutters, wood saws, grinders, submarine water pump, lorries with crane, dump trucks, rollers, ventilation fans and generators
	GW-RW0427-07	28 August 2007 to 27 February 2008	For concrete pump derrick barges, hand-held grinders, generators, air compressors, boring machines, water pumps, tug boat, grout mixers and
Wastewater Discharge License	EP760/421/011399/l	15 March 2006 to 31 March 2011	grout pumps Issued on 15 March 2006

2.6 COMMUNITY LIAISON GROUP MEETING

According to the EP requirements, a Community Liaison Group (CLG) shall be established within three months after commencement of construction of the Project. The major duty of CLG is to advise on and monitor the proper design, construction and operation of the Project. The CLG comprises representatives from Airport Authority, members of Tuen Mun community and academics. The first CLG meeting cum site visit was held on 27 July 2007.

The details of PAFF CLG (including Membership and its Terms of Reference) and the meeting minutes can be found on the Project website (www.paffhk.com).

2.7 SUMMARY OF NON-COMPLIANCE WITH THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

Summary of Environmental Non-compliance

No environmental non-compliance was found during the reporting period.

Summary of Environmental Complaints

No environmental complaint was received during the reporting period. A statistical summary of environmental complaints since project commencement is presented in *Annex D*.

Summary of Environmental Summons

No summons was received in this reporting period. A statistical summary of legal proceeding since project commencement is presented in *Annex D*.

3.1 Previous Environmental Deficiencies and Follow-up Actions

As no environmental complaint was received over the last reporting period, no follow-up action was required.

Weekly site inspections were carried out by the ET on 12th, 19th and 25th July, 2nd, 8th, 15th, 22nd and 29th August and 6th, 13th, 19th and 24th September 2007. Overall, the site was in good orderly manner and no non-compliance was found. Environmental deficiencies and follow-up actions/mitigation measures were identified during the inspections and summarised in *Table 3.1*.

Table 3.1 Environmental Deficiencies (Observations) from Site Inspections during Reporting Period

Reporting Month	Observation	Follow-up Action
July 2007	An air compressor at the Workshop was	Noise label was provided.
	operated without noise label.	
	Labels were not provided on several	Labels were provided.
	drums in the Chemical Waste Store.	
August 2007	Construction material at the stockpile area was observed to be loaded without spraying with water.	Site workers were deployed to spray water on the construction material during
	Excessive exhaust fumes were emitted from the drilling rig near the site entrance.	loading and unloading. The drilling rig was replaced.
	Sediment plume was observed at the outfall of the temporary drainage system after a rainstorm.	The temporary drainage system was upgraded with the installation geo-textile on the sediment tank.
	Ponding of rainwater was observed at areas around tank 1 and tank 3 and outside the site office.	Rainwater was pumped offsite via the temporary drainage system.
September 2007	The sand pile outside the site office was not properly covered with tarpaulin sheets.	The sand pile was covered accordingly.
	One of the chemical waste stores was	The chemical waste was
	observed to be full.	disposed of via licence
		chemical waste collector.

Overall, the site was in a good orderly manner. The ET will keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

3.2 IMPLEMENTATION STATUS ON ENVIRONMENTAL PROTECTION REQUIREMENTS

The implementation status of environmental mitigation measures and requirements as stated in the EIA Report, Environmental Permits and EM&A Manual during the reporting period is summarized in *Annex C*.

3.3 ENVIRONMENTAL MONITORING

3.3.1 Air and Noise

Air and Noise monitoring was not required for the project.

3.3.2 Water Quality

Water quality monitoring at the monitoring stations was not required as no dredging activity was taken place.

According to the Wastewater Discharge License (Industrial Trade Effluent) issued by the EPD on 15th March 2006, the Contractor is required to conduct grab sampling/analysis on total suspended solids at the designated discharge point(s) quarterly to ensure the quality of treated effluent at the designated discharge point(s) complies with the requirements of discharge license. One water sample at Discharge Point 2, the outfall near the operation building, was conducted on 28 September 2007. *Table 3.2* shows that the effluent discharged from the Project was in compliance with the discharge limit stipulated in the Water Discharge License.

Table 3.2 Results of Water Discharge Sampling

Sampling Location	Parameter	Test Result mg/L	Discharge Limit mg/L
Discharge Point 2	Total Suspended Solids dried at $103 \text{C} - 105 \text{C} \text{mg/L}$	7	30

3.3.3 Waste Management

The Contractor's revised Waste Management Plan (Revision 4) (WMP) was submitted to EPD on 20th September 2007.

3.3.4 Cultural Heritage

As no dredging activity was conducted along the pipe trench during the reporting period, marine archaeological monitoring was not required.

3.3.5 Landscape and Visual

According to the EIA report and EM&A Manual, mitigation measures and site inspection are required during the landscaping/planting works. The berm/landscaping bund was dominated by vegetation which was grown

during the project suspension period. The transplanted trees were in good and healthy conditions.

The weekly site inspections included audits on landscape and visual issues to ensure that the site was in orderly acceptable manner.

3.3.6 Land Contamination, Hazard to Life and Fuel Spill Risk

According to the EIA report and EM&A Manual, mitigation measures and design phase audit are required to minimise the risk of fuel spill and hazards. The Contractor will submit the updated design audit plan according to the EP requirements.

Pursuant to Condition 3.5 of the EP, the Contractor submitted two design drawings entitled Fencing and Security Wall Layout Plan (PAFF/LC/02/DWG/C/0176 Revision A) and Fencing and Security Wall Section (PAFF/LC/02/DWG/C/0177 Revision A) to the ET for certification on 30th July 2007. The ET reviewed the drawings and offered comment on the design of the security walls and bund walls, taking into account of Condition 3.5a of the EP, to the Contractor on 31st August 2007. Response to comment (RTC) from the Contractor was received by the ET on 19th September 2007. A review of the RTC is now in progress.

Weekly site inspection covered the waste management aspects which included measures to prevent land contamination by chemical wastes.

3.3.7 Ecology

Dolphin Visual Monitoring

No dolphin monitoring was conducted as there were no dredging activities during the reporting period.

3.3.8 EM&A Manual

The EM&A Manual for the Project is being updated by the ET to include the detailed arrangements of setting up a Community Liaison Group, carrying out design audit, and monitoring of Persistent Organic Pollutants during construction of the Project. The water quality monitoring may have to be revised as a result of the proposed change on the dredging programme. The EM&A Manual is expected to be submitted to EPD by early October 2007.

4 FUTURE KEY ISSUES AND CONCLUSION

4.1 KEY ISSUES FOR THE NEXT REPORTING PERIOD

Key issues to be considered in the next report period will include:

- Arrangements for baseline water quality monitoring for the commencement of dredging works;
- Capability of temporary drainage system to properly collect, treat and dispose of site runoff;
- Dust release and suppression.

4.2 IMPACT PREDICTION FOR THE NEXT REPORTING PERIOD

Provided that environmental mitigation measures including good on-site practises are properly implemented, it is not expected that unacceptable adverse impact will arise.

4.3 WORKS AND MONITORING SCHEDULE FOR THE NEXT REPORTING PERIOD

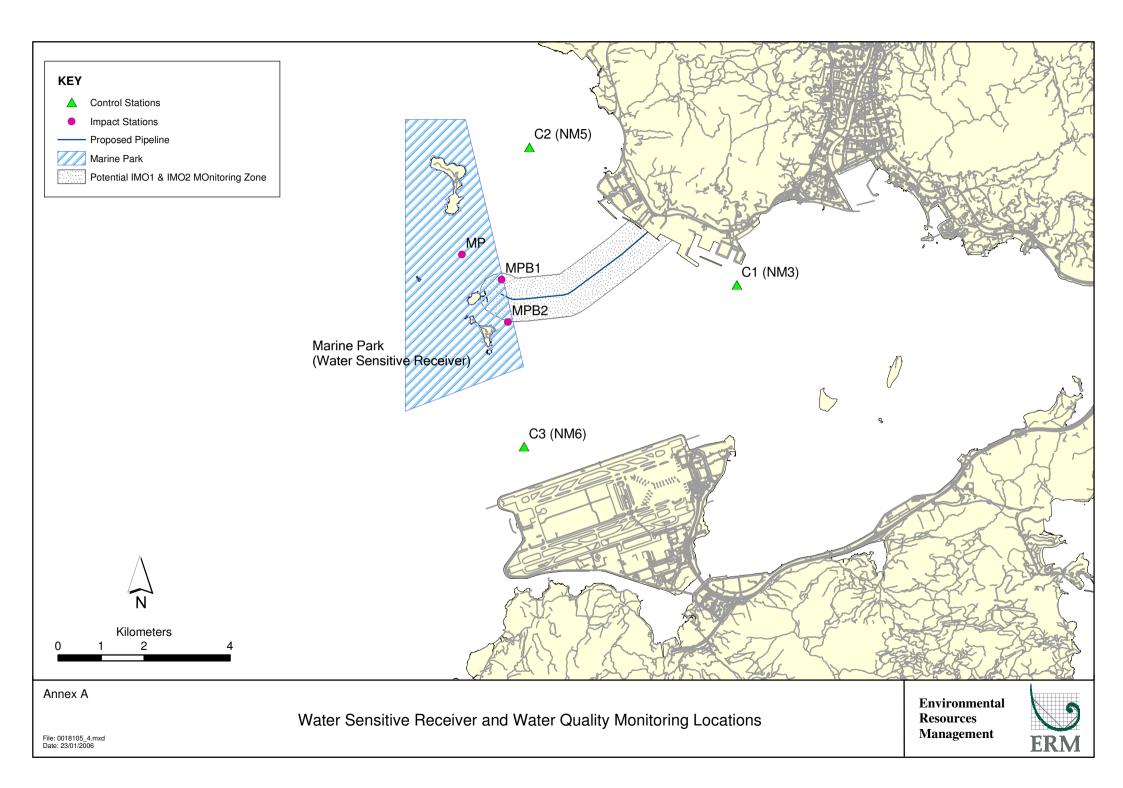
Work programme for the next reporting period includes jetty platform works (non-piling) and site works (construction works for tank farm, operational and fire services buildings, drainages, bund wall, security wall etc). Weekly site inspections will be undertaken.

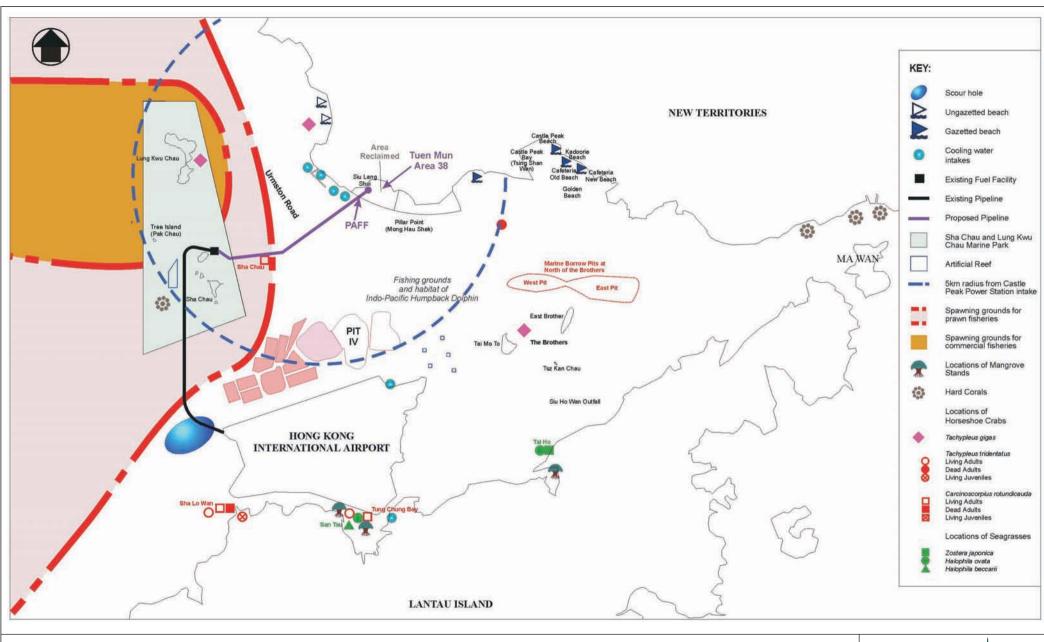
4.4 CONCLUSION

The EM&A works were conducted throughout the construction period and the relevant monitoring was conducted in accordance with the EP's requirements. Mitigation measures were used to minimise the environmental impacts, where appropriate. Some environmental deficiencies were observed during the site inspections and the Contractor implemented corrective action to mitigate the issues. Overall, the site was in an orderly manner.

Annex A

Water Quality Monitoring Stations, Water Quality and Ecological Sensitive Receivers





Annex A

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DATE: 25/01/2006

Water Quality and Ecological Sensitive Receivers

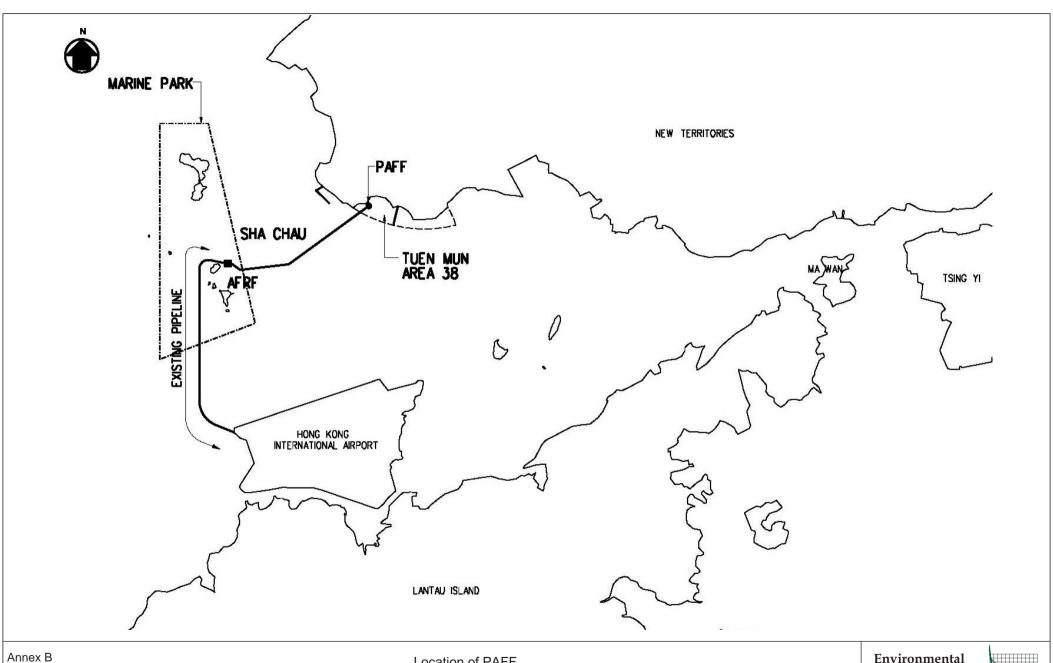
(Soure: PAFF for Hong Kong International Airport EIA, Mouchel 2002)

Environmental Resources Management



Annex B

Project Location



Location of PAFF

Environmental Resources Management



Annex C

Implementation Programme of Mitigation Measures

ANNEX C IMPLEMENTATION SCHEDULE

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or		plemen Schedu		Maintenance Agency	Implementation Status
Water Qua					Requirement	D	С	0		
6.7	6.8.1	There should be no access to the shore or working from land within the Marine Park. No marine anchors shall be used within the Marine Park.	Marine Park / Pipeline Dredging	Contractor	TMEIA		Y		N/A	Pending
6.7	6.8.1	No hydraulic dredging within Marine Park.	Marine Park / Pipeline Dredging	Contractor	TMEIA		Y		N/A	Pending
6.7	6.8.1	Dredging for pipeline trench should be timed to coincide with maintenance dredging for Sha Chau AFRF marine access channel if relevant.	Sha Chau ARFR Marine access channel	Airport Authority	TMEIA		Y		N/A	Pending
6.4		The work rate for dredging should not exceed 4,000 m ³ /hr for the TSHD and 7,000 m ³ /day for the grab dredger.	Marine Park / Pipeline Dredging	Contractor	TMEIA		Y		N/A	Pending
6.7	6.8.1	Standard good dredging practice measures shall be written in the dredging contract.	Marine Park / Pipeline Dredging	Franchisee	TMEIA		Y		N/A	Pending
6.7	6.8.1	Use of Lean Material Overboard (LMOB) systems shall be prohibited. No mud overflow is to be permitted for dredging using TSHD.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions		Y		N/A	Pending
6.7	6.8.1	Mechanical grabs shall be designed and maintained to avoid spillage and should seal tightly while being lifted.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions		Y		N/A	Pending

EIA Poteron so	EM&A	Environmental Protection Measures	Location /	Implementation Agent	Relevant	In	-		ation	Maintenance	Implementation
Reference	Manual Reference		Timing		Standard or Requirement	D		hedu C	le O	Agency	Status
6.7	6.8.1	Barges and hopper dredgers shall have tight fittings seals to their bottom openings to prevent leakage of material.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions			Y		N/A	Pending
6.7	6.8.1	Any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions			Y		N/A	Pending
6.7	6.8.1	Loading of barges and hoppers shall be controlled to prevent splashing of dredged material to the surrounding water. Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions			Y		N/A	Pending
6.7	6.8.1	Excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved.	O	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions			Y		N/A	Pending
6.7	6.8.1	Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions			Y		N/A	Pending
6.7	6.8.1	All vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions			Y		N/A	Pending

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	In D	Sc	ementa hedul C	Maintenance Agency	Implementation Status
6.7	6.8.1	The works shall not cause foam, oil, grease, letter or other objectionable matter to be present in the water within and adjacent to the works site.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions			Y	N/A	Ongoing
6.7	6.8.1	Placement of pipeline trench backfill should be undertaken in a controlled manner to minimise impacts. Backfilling with rock should be undertaken either down pipe or by a reverse grab operation or other controlled technique to ensure that this material does not mound on the seabed	Pipeline trench/ Pipeline Dredging	Contractor	TMEIA Minimise disturbance			Y	N/A	Pending
6.7	6.8.1	Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y	N/A	Ongoing
6.7	6.8.1	Sewage effluent and discharges from onsite kitchen facilities shall be directed to Government sewer in accordance with the requirements of the WPCO or collected for disposal offsite. The use of soakaways shall be avoided.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y	N/A	Ongoing
6.7	6.8.1	Storm drainage should be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sandbag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y	N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	In D	-	emen chedi C	tation ale O	Maintenance Agency	Implementation Status
6.7	6.8.1	Silt removal facilities, channels and manholes shall be maintained and any deposited silt and grit shall be removed regularly, including specifically at the onset of and after each rainstorm.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	Temporary access roads should be surfaced with crushed stone or gravel.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	Measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	Open stockpiles of construction materials (e.g. aggregates and sand) o nsite should be covered with tarpaulin or similar fabric during rainstorms.		Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	Manholes (including any newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing

EIA Reference	EM&A Manual	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or	In	menta nedul	ation e	Maintenance Agency	Implementation Status
	Reference		G	-	Requirement	D	C	O		
6.7	6.8.1	Discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	All vehicles and plant should be cleaned before they leave the construction site to ensure that no earth, mud or debris is deposited by them on roads. A wheel washing bay should be provided at every site exit.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	The section of construction road between the wheel washing bay and the public road should be surfaced with crushed stone or coarse gravel.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, shall be screened to remove large objects.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Vehicle and plant servicing areas, vehicle wash bays and lubrication facilities shall be located under roofed areas. The drainage in these covered areas shall be connected to foul sewers via a petrol interceptor in accordance with the requirements of the WPCO or collected for off site disposal.		Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing

EIA Reference	EM&A Manual	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or	In	-	emen	tation	Maintenance Agency	Implementation Status
Keference	Reference		Timing	Agent		D	Sc	neau C	iie O	Agency	Status
6.7	6.8.1	The contractors shall prepare oil/chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up immediately.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	Waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	All fuel tanks and chemical storage areas should be provided with locks and be sited on sealed areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	Surface run-off from bunded areas should pass through oil/grease traps prior to discharge to the stormwater system.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	6.8.1	Wastewater from pipe commissioning dewatering exercises shall be stored on site and for chemical analysis and safe disposal in accordance with the WPCO.	Tank Farm/Tank farm commissioning	Franchisee	TMEIA WPCO TM on Effluent Standards			Y		N/A	Ongoing
6.7	Section 6	All construction works shall be subject to routine audit to ensure implementation of all EIA recommendations and good working practice.	U	Contractor	EM&A Manual			Y		N/A	Ongoing
6.7	Section 6	Submarine section of aviation fuel pipeline shall be covered with rock armour protection which shall not protrude above the level of the adjacent natural seabed.	Submarine pipeline	Franchisee	TMEIA Rock armour to minimum thickness of 1m	Y		Y		Franchisee	Pending

EIA	EM&A	Environmental Protection Measures	Location /	Implementation	Relevant	Im	-		Maintenance	•
Reference	Manual Reference		Timing	Agent	Standard or Requirement	D	Schedul C	ie O	Agency	Status
6.7	Section 6	Detailed emergency response procedures shall be drawn up. These will include requirements to maintain floating oil booms, absorbent materials and skimmers on site at all times.	All facilities	Franchisee	TMEIA Industry Standards e.g. Oil Companies International Marine Forum			Y	Franchisee	Pending
6.7	Section 6	Coupling points on the jetty will be protected with slop collection utilities.	Jetty	Franchisee	TMEIA Rock armour to minimum thickness of 1m		Y		Franchisee	Pending
6.7	Section 6	Auxiliary tanks shall be permanently maintained at the tank farm for recovered fuel and slops.	Tank farm	Franchisee	TMEIA			Y	Franchisee	Pending
6.7	Section 6	Oily drainage systems and slop collection systems will connect to an oil/water separator.	Tank farm	Franchisee	TMEIA Industry Standards e.g. Oil Companies International Marine Forum		Y		Franchisee	Pending
6.7	Section 6	All tanks shall be bunded to a capacity of at least 150% of the largest individual tank in each compound by 2040. Tank pits shall be protected by an impermeable bed (e.g. geotextile sheeting) to prevent seepage of aviation fuel to ground. A leak detection system shall be installed beneath the containment membrane.	Tank farm	Franchisee	TMEIA Hong Kong Code of Practice for Oil Installations, 1992		Y		Franchisee	Pending
6.7	Section 6	There shall be no direct outlet from the bund. A collection pump shall be included in the base. Removal of accumulated rainwater shall be activated manually and discharged to storm drain via an oil/water separator.	Tank farm	Franchisee	TMEIA		Y		Franchisee	Pending

EIA	EM&A	Environmental Protection Measures	Location /	Implementation	Relevant	Im	plement		Maintenance	Implementation
Reference	Manual		Timing	Agent	Standard or		Schedu		Agency	Status
	Reference				Requirement	D	C	О		
6.7	Section 6	Contingency procedures shall be drawn	Tank farm	Franchisee	TMEIA			Y	Franchisee	Pending
		up to ensure containment and safe			Hong Kong					
		disposal of any fuel lost from tanks or			Code of Practice					
		pipework. Suitable absorbent materials			for Oil					
		(e.g. sand or earth) shall be kept on site			Installations,					
		to deal with spillages.			1992					
6.7	Section 6	Valves shall be installed within the storm	Tank farm	Franchisee	TMEIA		Y		Franchisee	Pending
		drainage system to facilitate the retention								
		of spillages.								
6.10	Section 6	Water quality monitoring shall be	Design	Contractor	EM&A Manual		Y		N/A	Pending
		undertaken for suspended solids,	monitoring stations as defined in							
		turbidity, and dissolved oxygen.								
		, , , , , , , , , , , , , , , , , , , ,								
			EM&A Manual,							
			section 6.							
			Construction							
			period when							
			dredging takes							
			place within							
			1000m of							
			Marine Park							
			and along entire							
			length of the							
			pipeline							

EIA	EM&A	Environmental Protection Measures	Location /	Implementation	Relevant		plement		Maintenance	Implementation
Reference	Manual Reference		Timing	Agent	Standard or Requirement	D	Schedul C	le O	Agency	Status
6.10	Section 6	Routine water quality monitoring in the vicinity of the PAFF site to check the effectiveness of the proposed precautionary measures implemented for on-site spill control. The details of the monitoring to be undertaken will be prepared by the Franchisee as part of the PAFF Operations Manual and the details will be agreed with the relevant authorities within 3 months of the commencement of operation of the PAFF. Monitoring should include but not be limited to the parameters of TPH and PAH and reference should be made to the existing monitoring programme undertaken for the fuel tank farm on the HKIA platform.		Franchisee	EM&A Manual	D		Y	N/A	Pending
Ecology		1								
7.8	5.3	Undertake post construction dolphin abundance monitoring.	Construction	Contractor	TMEIA		Y		N/A	Pending
7.8	5.3	A 250m dolphin exclusion zone shall be implemented and dredging shall not begin until the observer has confirmed that the area has been clear for 30 minutes.	250m around dredger/throug hout dredging in Marine Park and along the length of pipeline	Contractor	TMEIA		Y		N/A	Pending

EIA Reference	EM&A Manual	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or	Im	-	nenta edul	ition e	Maintenance Agency	Implementation Status
	Reference		G		Requirement	D	(2	Ο		
7.8	5.3	Works will be restricted to a daily maximum of 12 hours within daylight hours.	Throughout dredging in Marine Park and along the length of the pipeline except for the section crossing Urmston Road Channel	Contractor	TMEIA		`	Y		N/A	Pending
7.8	5.3	Avoidance of dolphin main calving season between March and August.	Throughout dredging in Marine Park and along the length of the pipeline	Contractor	TMEIA		3	Y		N/A	Pending
Landscape											
8.10	7.2.1	The construction programme for the PAFF should be reduced to the shortest possible period.	PAFF site / throughout construction period	Contractor	TMEIA	Y		Ý		N/A	Ongoing
8.10	7.2.1	The extent and periphery of the works areas should be managed so that they are as small as possible and do not appear cluttered, untidy and unattractive, particularly to road traffic along Lung Mun Road.	PAFF site / throughout construction period	Contractor	TMEIA			Ý	Y	N/A	Ongoing
8.10	7.2.1	Temporary hoarding barriers should be of a recessive visual appearance in both colour and form.	PAFF site / throughout construction period	Contractor	TMEIA	Y	7	Y		N/A	Ongoing
8.10	7.2.1	Materials should be stored in areas with the least obstruction to residents, pedestrians and traffic.	PAFF site / throughout construction period	Contractor	TMEIA		`	Ý	Y	N/A	Ongoing

EIA	EM&A	Environmental Protection Measures	Location /	Implementation	Relevant	-	lement			Implementation
Reference	Manual Reference		Timing	Agent	Standard or Requirement	D	Schedul C	le O	Agency	Status
8.10	7.2.1	All material stockpiles should be covered with an impermeable material and	PAFF site / throughout	Contractor	TMEIA		Y	Y	N/A	Ongoing
		sandbagging diversions should be placed around exposed soil.	construction period	_						
8.10	7.2.1	Conservation of existing and imported soil resources.	PAFF site / throughout construction period of fuel tank expansion	Contractor	TMEIA			Y	N/A	Ongoing
8.10	7.2.1	A landscape perimeter bund comprising containment bund-wall, access road and planting buffer shall be built and maintained around the tank farm.	PAFF site / throughout construction period	Project Proponent	TMEIA	Y	Y	Y	Franchisee	Ongoing
8.10	7.2.1	The design of the PAFF should incorporate materials, details and textures which are visually recessive.	PAFF site / design	Project Proponent	TMEIA	Y	Y		N/A	Ongoing
8.10	7.2.1	Colours should be of low chromatic intensity to reduce the potential contrast between the structure and their background.	PAFF site tanks / design	Project Proponent	TMEIA	Y	Y		N/A	Ongoing
8.10	7.2.1	Visually permeable security fencing should be used around the perimeter.	Site perimeter	Project Proponent	TMEIA	Y	Y	Y	N/A	Ongoing
8.10	7.2.1	Minimum amount of lighting for the tanks shall be used, only applied for safety at the key access points and staircases.	Tanks / Operational phase	Project Proponent	TMEIA	Y	Y	Y	N/A	Ongoing
8.10	7.2.1	Limited lighting intensity on the site.	PAFF site / Operational phase	Project Proponent	TMEIA	Y	Y	Y	N/A	Ongoing
8.10	7.2.1	Directional down lighting is suggested to minimise light spill to the surrounding area.	PAFF site / Operational phase	Project Proponent	TMEIA	Y	Y	Y	N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	In D	_	entation edule O	Maintenance Agency	Implementation Status
Cultural H	eritage									_
9.8.1	9.2.1	Undertake a watching brief during dredging of the pipeline within 25m either side of anomalies SS1 and SS2. This should comprise:	Within vicinity of SS1 and SS2	Franchisee	TMEIA		Υ	,	N/A	Pending
		 Dredge operators to be made aware of the potential presence of cultural heritage material. The operators would be required to report to the AMO any unusual resistance and/or recovery of timbers, anchors or other wreck related material. Any obstacles encountered during the dredging that are of timber should be reported to the marine archaeologist. The obstacle should be avoided and not removed until it has been assessed by the marine archaeologist as to whether the obstacle is of cultural heritage importance; A marine archaeologist shall be on board the dredging barge during dredging within 25m either side of SS1 and SS2 in the event of any unusual resistance occurring or blockages which requires the dredge head to be bought on deck for 								

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or	Implementation Schedule				Agency	Implementation Status
	Reference				Requirement	D	(2	0		
		• Dredging to cease in the nominated area SS1 after 3 meters of sediment removal and after 1 metre for SS2. A dive survey will then be undertaken to examine the trench for possible cultural remains.									
9.8.2	9.2.1	During the course of the watching brief, if the targets are identified as being potentially archaeologically important, then an immediate marine archaeological impact assessment in accordance with EIAO TM Annex 19 will be required to be undertaken by a qualified marine archaeologist.	With vicinity of SS1 and SS2	Franchisee	TMEIA)	(N/A	Pending
9.8.4	9.2.1	Any changes, additions or alterations to the dredging method and alignment should be further assessed by marine archaeologist to determine if any further assessment is required.	Pipeline alignment	Franchisee	TMEIA)	(N/A	Pending
Fuel Spill F	Risk	assessment is required.									
11.4.1	10.2	Tank farms will be constructed in a bunded area surrounding the tanks which will have collection capacity of 150% of the maximum content of the largest tank.	Tank farm / Design Phase	Franchisee	TMEIA	Y				N/A	Pending
11.4.1	10.2	Emergency shut down valves shall be installed within the wider site storm drainage system.	Tank farm / Design Phase	Franchisee	TMEIA	Y				N/A	Pending
11.4.1	10.2	An impermeable membrane shall be installed in the tank foundation beneath the tank bottom.	Tank farm / Design Phase	Franchisee	TMEIA	Y				N/A	Pending
11.4.1	10.2	Pipeline to be covered with a protective rock armour layer.	Pipelines/ Design Phase	Franchisee	TMEIA	Y				Franchisee	Pending

EIA	EM&A	Environmental Protection Measures	Location /	Implementation	Relevant	-	lement		Maintenance	Implementation
Reference	Manual		Timing	Agent	Standard or		Schedu	le	Agency	Status
	Reference				Requirement	D	C	O		
11.4.1	10.2	An integrated leak detection system shall		Franchisee	TMEIA	Y			N/A	Pending
		be installed to all pipelines to provide early detection of any leak.	Design Phase							
11.4.1	10.2	An automatic shut-off system shall be	Pipelines/	Franchisee	TMEIA	Y			N/A	Pending
		implemented for pipelines.	Design Phase							
11.4.1	10.2	A workboat shall be on standby at the	Jetty/ During	Franchisee	TMEIA	Y		Y	N/A	Pending
		jetty during tanker berthing.	Tanker Berth							
11.4.1	10.2	Skimmers shall be available for quick	Jetty/ During	Franchisee	TMEIA	Y		Y	N/A	Pending
		deployment in case of a spill.	Tanker Berth							
11.4.1	10.2	An emergency response plan shall be	Jetty/ During	Franchisee	TMEIA	Y		Y	N/A	Pending
		prepared prior to the operation of the PAFF.	Tanker Berth							
11.4.1	10.2	Operator-training programme shall be implemented.	Jetty/ During Tanker Berth	Franchisee	TMEIA	Y		Y	N/A	Pending
11.6	10.4	During the planning of the later phase of	During	Franchisee	TMEIA			Y	N/A	Pending
		the tank farm development, in order to	planning stage							O
		ensure that the required mitigation	for future tank							
		measures are undertaken at that time,	construction							
		review the EIA report only if the latest								
		technology, industrial standards and								
		statutory requirements have changed by								
		that time.								

EIA Reference	EM&A Manual	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or		plement Schedul		Maintenance Agency	Implementation Status
11010101100	Reference		B	1190110	Requirement	D	C	O	11gene,	
11.6	10.4	Regular inspections and audits will be undertaken by the Franchisee during the operational phase of the facility:	Operation	Franchisee	TMEIA			Y	N/A	Pending
		 Two inspections every year of the tank farm, jetty and pipelines including one undertaken pursuant to the Joint Inspection Group (JIG) explained above; 								
		• Inspection of the whole sub sea pipelines every 5 to 10 years;								
		 Health, Safety and Environmental audit of the facility once every 3 years; and, 								
		• Inspection of the structural integrity of the tanks once per year.								
11.6	10.4	Prepare an Environmental Management Plan to ensure the on-going adequacy of the fuel spill contingency plan and that it is being implemented as required and that the above mitigation measures have been incorporated and are effective.	of operation of the PAFF with	Franchisee	TMEIA			Y	N/A	Pending
Land Conta	nmination	•								
13.5.1	10.2	Bunding shall be provided by all fuel storage areas to at least 150% of largest individual tank in each compound.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	Pending
13.5.1	10.2	Relevant design standards for storage tanks, pipework, containment and drainage shall be adhered to.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	Pending
13.5.1	10.2	Plant inspections and maintenance shall be undertaken once per month.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Pending

EIA	EM&A	Environmental Protection Measures	Location /	Implementation	Relevant	-	lement			Implementation Status
Reference	Manual Reference		Timing	Agent	Standard or Requirement	D	Schedu C	le O	Agency	
13.5.1	10.2	Impermeable lining shall be provided for	Tank farm /	Franchisee	TMEIA	Y			N/A	Pending
		all tank pits.	Design							O
13.5.1	10.2	Leak detection systems shall be provided	Tank farm /	Franchisee	TMEIA	Y			N/A	Pending
		to all valves.	Design							
13.5.1	10.2	Surface drainage shall be contained and	Tank farm /	Franchisee	TMEIA	Y	Y	Y	N/A	Pending
		treated prior to discharge.	Design							
13.5.1	10.2	Emergency spill response plans shall be	Tank farm /	Franchisee	TMEIA	Y		Y	N/A	Pending
10 5 1	10.0	prepared.	Design	г 1.	Th ALL A	3/		37	NT / A	D 1:
13.5.1	10.2	Spill control materials and equipment	Tank farm /	Franchisee	TMEIA	Y		Y	N/A	Pending
13.5.1	10.2	shall be provided on site. Runoff from the rood of site buildings	Design Tank farm /	Franchisee	TMEIA	Y		Y	N/A	Pending
13.3.1	10.2	and landscaped areas shall be conveyed	Design	Tranchisee	INILIA	1		1	IN/A	renanig
		in closed drains to the nearest storm	Design							
		water drain to prevent the generation of								
		excessive quantities of surface water								
		which may be polluted.								
13.5.5	10.2	Suitable absorbent materials (e.g. sand or	Tank farm /	Franchisee	TMEIA	Y			N/A	Pending
		earth) shall be kept on site to deal with	Design							
		spills. Chemical dispersants shall not								
10 = =	10.0	be employed.	T 1 (/		TD 677.4		.,		27/4	D 11
13.5.5	10.2	The facility shall be designed,	Tank farm /	Franchisee	TMEIA	Y	Y	Y	N/A	Pending
		constructed, operated and maintained in full accordance with the Code of Practice	Design							
		for Oil Installations, 1992.								
13.5.5	10.2	Tank pressure testing shall be carried out	Tank farm /	Franchisee	TMEIA	Y	Y	Y	N/A	Pending
10.0.0	10.2	routinely to check for possible tank leaks.		Tranchisee	11412111	•	•	•	14,71	renang
		Product inventory monitoring shall be	8							
		integrated into site management								
		procedures to check for any abnormal or								
		unexpected product loss.								
13.5.5	10.2	Tank overfill monitoring systems shall	Tank farm /	Franchisee	TMEIA	Y	Y	Y	N/A	Pending
		be installed and regularly tested. Inlet	Design							
		valves shall be designed to automatically								
		shutdown on exceedance of "high-high								
		level" to prevent over-filling.								

EIA	EM&A	Environmental Protection Measures	Location /	Implementation	Relevant		lemen		Maintenance	Implementation
Reference	Manual		Timing	Agent	Standard or		Schedu		Agency	Status
	Reference				Requirement	D	С	О		
13.5.5	10.2	Pipe leakages shall be routinely checked	Tank farm /	Franchisee	TMEIA	Y	Y	Y	N/A	Pending
		for by means of a pressure sensitive leak	Design							
		detection system and routine inventory								
10 = =	10.0	control.	T 16 (TD (TT) 4	.,			27/4	D 11
13.5.5	10.2	Drainage from areas of hardstanding	Tank farm /	Franchisee	TMEIA	Y	Y	Y	N/A	Pending
		shall be treated by means of oil/water	Design							
		separators prior to discharge to storm								
		drain. All surface drainage shall be fitted with closure valves to provided								
		additional containment and facilitate								
		clean up of any leaks.								
13.5.5	10.2	The delivery pipeline from the jetty and	Tank farm /	Franchisee	TMEIA	Y	Y		N/A	Pending
		the supply line to the airport shall be	Design						,	0
		fitted with pressure sensitive leak	O							
		detectors.								
Waste Man	agement									
14.7.2	8.3.1	The Contractor shall identify a	Contract	Contractor	TMEIA		Y		N/A	Ongoing
		coordinator for the management of	mobilisation							
		waste.								
14.7.2	8.3.1	The waste coordinator shall prepare and	Contract	Contractor	TMEIA, Works		Y		N/A	Ongoing
		implement a Waste Management Plan	mobilisation		Branch					
		which specifies procedures such as			Technical					
		ticketing system, to facilitate tracking of			Circular No.					
		loads and to ensure that illegal disposal of waste does not occur, and protocols			5/99 for the					
		for the maintenance of records of the			Trip-ticket System for					
		quantities of wastes generated, recycled			Disposal of					
		and disposal.			Construction					
					and Demolition					
					Material					

EIA Reference	EM&A Manual	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or		Sch	nenta iedul	e	Maintenance Agency	Implementation Status
14.7.2	Reference 8.3.1	The Contractor shall apply for and obtain the appropriate licenses for the disposal of public fill, chemical waste and effluent discharges.	Contract mobilisation	Contractor	Requirement TMEIA, Land (Miscellaneous Provisions) Ordinance (Cap 28); Waste Disposal Ordinance (Cap 354); Dumping at Sea Ordinance (Cap 466); Water Pollution Control Ordinance.	D		C Y	0	N/A	Ongoing
14.7.2	8.3.1	No waste shall be burnt on site.	PAFF Site throughout construction period	Contractor	TMEIA			Y		N/A	Ongoing
14.7.2	8.3.1	Excavated material shall be used on site for purposes of landscaping or formation of bund walls as far as possible.	All site /	Contractor	TMEIA			Y		N/A	Ongoing
14.7.2	8.3.1	All material shall be reused on site as far as practicable, including formwork plywood, topsoil and excavated material.	All site / throughout	Contractor	TMEIA			Y		N/A	Ongoing
14.7.2	8.3.1	Suitable provisions shall be included in the construction contract to ensure that the Contractor sorts and recycles waste.	Contract preparation stage	HyD	TMEIA	Y				N/A	Ongoing

EIA Reference	EM&A Manual	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or	Implementation Schedule			Maintenance Agency	Implementation Status
Reference	Reference		Timing	Agent	Requirement	D	C	0	Agency	Status
14.7.2	8.3.1	Re-use and recycling of waste must always be considered first. Waste disposal shall only be undertaken in the last resort. Any surplus material generated shall be sorted on site into construction and demolition (C&D) waste and the public fill fraction. A sorting facility shall be set up on the site.	All areas / throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	The site and surroundings shall be kept tidy and litter free.	All areas / throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	The C&D waste shall be disposed of at a licensed landfill or deposited at an authorised waste transfer facility and the material suitable for public fill delivered to a public filling area, public filling barging point or public fill stockpile area after obtaining the appropriate licence.	CEDD pubic fill stockpile in Mui	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	Stockpile material shall avoid vegetated areas.	All areas / throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing

EIA	EM&A Manual	Environmental Protection Measures	Location /	Implementation	Relevant	In	_	emen chedı	tation		Implementation
Reference	Reference		Timing	Agent	Standard or Requirement	D	3	Cnear	O	Agency	Status
14.7.2	8.3.1	Stockpiles shall be covered by tarpaulin and/or watered as required.	All areas / throughout construction period, particularly during dry season	Contractor	TMEIA, Public Health and Municipal Services Ordinance (Cap 132) and the Public Cleansing and Prevention of Nuisances (Regional Council) By-			Y		N/A	Ongoing
14.7.2	8.3.1	Storage of material on site should be kept to a minimum.	All areas / throughout construction period	Contractor	laws TMEIA, Public Cleansing and Prevention of Nuisances (Regional Council) By- laws			Y		N/A	Ongoing

EIA Reference	EM&A Manual	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or	In	plen	enta edule		Maintenance Agency	Implementation Status
Reference	Reference		Timing	rigent	Requirement	D	C		0	11geney	Status
14.7.2	8.3.1	Excavated material in trucks shall be covered by tarpaulins.	All areas, particularly at site exits / throughout construction period	Contractor	TMEIA, Reduce the potential for spillage and dust. Public Health and Municipal Services Ordinance (Cap 132) and the Public Cleansing and Prevention of Nuisances (Regional Council) Bylaws)			N/A	Ongoing
14.7.2	8.3.1	Wheel washing facilities shall be used by all trucks leaving the site to prevent the transfer of mud onto public roads.	Site entrances and exits/ throughout construction period	Contractor	TMEIA, Public Cleansing and Prevention of Nuisances (Regional Council) By- laws		Ŋ	(N/A	Ongoing
14.7.2	8.3.1	Suitable chemical waste storage areas should be formed at the works site for temporary storage pending collection.	Works site/ throughout construction period	Contractor	TMEIA, Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. A Guide to the Chemical Waste Control Scheme)	(N/A	Ongoing

EIA	EM&A	Environmental Protection Measures	Location /	Implementation	Relevant	In	-		ation	Maintenance	Implementation
Reference	Manual Reference		Timing	Agent	Standard or Requirement	D		nedul C	le O	Agency	Status
14.7.2	8.3.1	A licensed contractor shall be employed to collect chemical waste for delivery to a licensed treatment facility.	Chemical waste treatment facility at Tsing Yi / throughout construction period	Contractor	TMEIA, Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. A Guide to the Chemical Waste Control Scheme			Y	0	N/A	Ongoing
14.7.2	8.3.1	Temporary storage areas for general refuse should be enclosed to avoid environmental impacts.	All areas/ throughout construction period	Contractor	TMEIA, Public Health and Municipal Services Ordinance			Y		N/A	Ongoing
14.7.2	8.3.1	Sufficient dustbins should be provided for storage of waste.	All areas/ throughout construction period	Contractor	TMEIA, Public Cleansing and Prevention of Nuisances Ordinance (Regional Council) By- laws, Public Health and Municipal Services Ordinance			Y		N/A	Ongoing
14.7.2	8.3.1	General refuse should be cleared daily and should be disposed of to the nearest licensed facility.	All areas, WENT landfill or NWNT refuse transfer stations/ throughout construction period	Contractor	TMEIA, Sanitation and Conservancy (Regional Council) By- laws			Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D C O	Maintenance Agency	Implementation Status
14.7.2	8.3.1	Waste oils, chemicals or solvents shall not be disposed of to drain.	PAFF site/ throughout construction period	Contractor	TMEIA	Y	N/A	Ongoing
14.7.2	8.3.1	Good site practice shall be implemented to avoid waste generation and promote waste minimisation.	PAFF site/ throughout construction period	Contractor	TMEIA	Y		Ongoing
14.7.2	8.3.1	Waste materials such as paper, metal, timber and waste oil shall be recycled as far as practicable.	PAFF site/ throughout construction period	Contractor	TMEIA	Y	N/A	Ongoing
14.7.2	8.3.1	Temporary structures used during construction shall be provided in the form of proprietary Protakabin type units sited on areas of permanent hard paving units as far as practicable.	PAFF site/ throughout construction period	Contractor	TMEIA	Y	N/A	Ongoing
14.7.2	8.3.1	Dredged marine mud shall be disposed of in a gazetted marine disposal ground under the requirements of the Dumping at Sea Ordinance.	PAFF site/ throughout construction period			Y	N/A	Ongoing
14.7.2	8.3.1	All waste containers shall be in good condition and fitted with lids or covers to prevent waste from escaping or the ingress of water.	PAFF site/ throughout construction period	Contractor	TMEIA	Y	N/A	Ongoing
14.7.2	8.3.1	All waste containers shall be in a secure area on hardstanding.	PAFF site/ throughout construction period	Contractor	TMEIA	Y	N/A	Ongoing
14.7.2	8.3.1	Emergency equipment to deal with any spillage or fire shall be kept on site.	PAFF site/ throughout construction period		TMEIA	Y	N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Im D	Scl	mentation hedule C O	Maintenance Agency	Implementation Status
14.7.2	8.3.1	All containers used for storage of chemical waste shall be maintained in good condition and clearly labelled in both English and Chinese.	PAFF site/ throughout construction period	Contractor	TMEIA			Y	N/A	Ongoing
14.7.2	8.3.1	All storage areas for chemical waste shall be:	•	Contractor	TMEIA			Y	N/A	Ongoing
		• Clearly labelled;	period							
		• Enclosed on at least 3 sides;								
		 Have impermeable floor and bunding sufficient to fully retain any spillage or leakages; 								
		• Ventilated; and,								
		 Covered to prevent rainfall from entering. 								
14.7.2	8.3.1	All types of asbestos including sources (such as clutch linings) shall be treated as chemical waste. Asbestos containing wastes shall be kept separate from other wastes.	PAFF site/ throughout construction period	Contractor	TMEIA			Y	N/A	Ongoing
14.7.2	8.3.1	All leaking containers shall be contained and removed from site an soon as is reasonably practicable.	PAFF site/ throughout construction period	Contractor	TMEIA			Y	N/A	Ongoing
14.7.2	8.3.1	Training shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling.	PAFF site/ throughout construction period	Contractor	TMEIA			Y	N/A	Ongoing

EIA	EM&A	Environmental Protection Measures	Location /	Implementation	Relevant	Im	plement	ation	Maintenance	Implementation
Reference	Manual		Timing	Agent	Standard or		Schedu	le	Agency	Status
	Reference				Requirement	D	C	O		
14.7.2	8.3.1	EM&A of waste handling, storage,	All areas/	Contractor	TMEIA		Y		N/A	Ongoing
Section 5		transportation, disposal procedures and	throughout							
		documentation through the site audit	construction							
		programme shall be undertaken.	period							

Annex D

Cumulative Complaints Statistics

Annex D Cumulative Complaints Statistics

Statistical Summary of Environmental Complaints

Reporting Period	_	Complaint Statistics	3
	Frequency	Cumulative	Complaint Nature
Before construction	1	1	Dust
works			
18/11/05 - 15/12/05	1	2	Dust
15/12/05 - 14/01/06	0	2	Nil
15/01/06 - 14/02/06	0	2	Nil
15/02/06 - 14/03/06	0	2	Nil
15/03/06 - 14/04/06	0	2	Nil
15/04/06 - 14/05/06	0	2	Nil
15/05/06 - 14/06/06	0	2	Nil
15/06/06 - 14/07/06	0	2	Nil
Re-commencement of con	struction works on 9th	July 2007	
09/07/07 - 31/07/07	0	2	Nil
01/08/07 - 31/08/07	0	2	Nil
01/09/07 - 30/09/07	0	2	Nil

Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons								
	Frequency	Cumulative	Summon Nature						
18/11/05 – 15/12/05	0	0	Nil						
16/12/05 - 14/01/06	0	0	Nil						
15/01/06 - 14/02/06	0	0	Nil						
15/02/06 - 14/03/06	0	0	Nil						
15/03/06 - 14/04/06	0	0	Nil						
15/04/06 - 14/05/06	0	0	Nil						
15/05/06 - 14/06/06	0	0	Nil						
15/06/06 - 14/07/06	0	0	Nil						
Re-commencement of cons	struction works on 9th	July 2007							
09/07/07 - 31/07/07	0	0	Nil						
01/08/07 - 31/08/07	0	0	Nil						
01/09/07 - 30/09/07	0	0	Nil						

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