Annex F

Implementation Schedule of Mitigation Measures Annex F1

Implementation Schedule of Mitigation Measures for Construction Phase

EIA Ref.	EM&A	Environmental Protection Measures	Location/ Timing	Status
	Log Ref.			
Summary o	of Environment	al Mitigation Measures in the EIA and EM&A Manual		
A. A	Air Quality			
3.73	2.5	Air Pollution Control (Construction Dust) Regulation & Good Site Practices	Construction Site / During	<>
		•Use of regular watering, with complete coverage, to reduce dust emissions from exposed site	Construction Period	
		surfaces and unpaved roads, particularly during dry weather.		
		•Use of frequent watering for particularly dusty construction areas and areas close to ASRs.		
		•Side enclosure and covering of any aggregate or dusty material storage piles to reduce		
		emissions. Where this is not practicable owing to frequent usage, watering should be applied to aggregate fines.		
		•Open stockpiles should be avoided or covered. Where possible, prevent placing dusty material		
		storage piles near ASRs.		
		•Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.		
		•Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.		
		•Provision of wind shield and dust extraction units or similar dust mitigation measures at the		
		loading points, and use of water sprinklers at the loading area where dust generation is likely during the loading		
		process of loose material, particularly in dry seasons/ periods.		
		•Imposition of speed controls for vehicles on unpaved site roads. 8 kilometers per hour is the		
		recommended limit.		
		•Where possible, routing of vehicles and positioning of construction plant should be at the		
		maximum possible distance from ASRs.		
		•Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered		
		entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.		
		•Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible		
		high level alarm which is interlocked with the material filling line and no overfilling is allowed.		
		•Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried		
		out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system.		

Annex F1 Summary of Mitigation Measures Implementation Schedule for Construction Phase

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
В. Н	lazard to Life			
4.102	3.3	Construction Phase	Construction Site / During	\checkmark
		•The number of workers on site during construction stage should be kept at the same level as the	Construction Period	
		assessment.		
		•Construction works should be suspended when delivery of chlorine takes place.		
		•3m high fence should be constructed along the boundary facing the SHWWTW.		
		•Emergency evacuation procedures should be formulated and the Contractor should ensure all		
		workers on site should be familiar with these procedures as well as the route to escape in case of		
		gas release incident. Relevant Departments, such as Fire Services Department (FSD), should be		
		consulted during the development of Emergency procedures. Diagram showing the escape		
		routes to a safe place should be posted in the site notice boards and at the entrance/exit of site.		
		A copy of the latest version emergency procedures should be dispatched to Tung Chung Fire		
		Station for reference once available.		
		•The emergency procedures should specify means of providing a rapid and direct warning (e.g.		
		Siren and Flashing Light) to construction workers in the event of chlorine gas release in the SHWWTW.		
		•The Contractor should establish a communication channel with the SHWWTW operation		
		personnel and FSD during construction stage. In case of any hazardous incidents in the		
		treatment works, operation personnel of SHWWTW should advise the Contractor to inform		
		construction workers to proceed with emergency procedure. The Contractor should appoint a		
		Liaison Officer to communicate with FSD Incident Commander on site in case of emergency.		
		•Introduction training should be provided to any staff before carryout construction works at the		
		Project site.		
		•Periodic drills should be coordinated and conducted to ensure all construction personnel are		
		familiar with the emergency procedures. Upon completion of the drills, a review on every step		
		taken should be conducted to identify area of improvement. Prior notice of periodic drills		
		should be given to Station Commander of Tung Chung Fire Station. Joint operational exercise		
		with FSD and SHWWTW is recommended.		

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
5.44	4.5	<u>Construction site run-off and general construction activities:</u> The mitigation measures as outlined in the ProPECC PN 1/94 Construction Site Drainage should be adopted where applicable.	Construction Site / During Construction Period	\checkmark
5.45	4.5	<u>Excavation of Soil Materials</u> The construction programme should be properly planned to minimise soil excavation, if any, in rainy seasons. This prevents soil erosion from exposed soil surfaces. Any exposed soil surfaces should also be properly protected to minimise dust emission. In areas where a large amount of exposed soils exist, earth bunds or sand bags should be provided. Exposed stockpiles should be covered with tarpaulin or impervious sheets at all times. The stockpiles of materials should be placed at locations away from any stream courses so as to avoid releasing materials into the water bodies. Final surfaces of earthworks should be compacted and protected by permanent work.	Construction Site / During Construction Period	N/A
5.46	4.5	<u>Accidental spillage of chemicals:</u> Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	Construction Site / During Construction Period	\checkmark
5.47	4.5	Maintenance of vehicles and equipments involving activities with potential for leakage and spillage should only be undertaken within the areas which appropriately equipped to control these discharges.	Construction Site / During Construction Period	\checkmark
5.48	4.5	Oils and fuels should only be used and stored in designated areas which have pollution prevention facilities. All fuel tanks and storage areas should be sited on sealed areas in order to prevent spillage of fuels and solvents to the nearby watercourses. All waste oils and fuels should be collected in designated tanks prior to disposal.	Construction Site / During Construction Period	N/A
5.49	4.5	Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows:	Construction Site / During Construction Period	\checkmark

EIA Ref.	EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
		 Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. Chemical waste containers should be suitably labeled, to notify and warn the personnel who are handling the wastes, to avoid accidents. Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area. 		
5.50	4.5	Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid entering to the nearby watercourses. Stockpiles of cement and other construction materials should be kept covered when not being used. Rubbish and litter from construction sites should also be collected to prevent spreading of rubbish and litter from the site area. It is recommended to clean the construction sites on a regular basis.	Construction Site / During Construction Period	\checkmark
5.51	4.5	<u>Sewage Effluent</u> The presence of construction workers generates sewage. It is recommended to provide sufficient chemical toilets in the works areas. The toilet facilities should be more than 30m from any watercourse. A licensed waste collector should be deployed to clean the chemical toilets on a regular basis.	Work site/During the construction period	N/A
5.52	4.5	Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the project. Regular environmental audit on the construction site can provide an effective control of any malpractices and can achieve continual improvement of environmental performance on site.	Work Site / During Construction Period	\checkmark
5.53	4.5	Nullah Decking To minimize the potential water quality impacts from the nullah reconstruction works, the practices outlined below should be adopted where applicable: •The proposed works should be carried out within the dry season between October and March when the flow in the open nullah is low. •The use of less or smaller construction plants may be specified to reduce the disturbance to the nullah bed.	Work Site / During Construction Period	N/A

EIA Ref.	EM&A	Environmental Protection Measures	Location/ Timing	Status
	Log Ref.			
		•Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and		
		temporary stockpile of construction materials should be located well away from the nullah and		
		any water courses during carrying out of the construction works.		
		•Stockpiling of construction materials and dusty materials should be covered and located away		
		from the nullah any water courses.		
		•Construction debris and spoil should be covered up and/or disposed of as soon as possible to		
		avoid being washed into the nullah and nearby water receivers.		
		•Construction activities, which generate large amount of wastewater, should be carried out in a		
		distance away from the nullah, where practicable.		
		•Construction effluent, site run-off and sewage should be properly collected and/or treated.		
		•Any works site inside the nullah should be temporarily isolated, such as by placing of		
		sandbags or silt curtains with lead edge at bottom and properly supported props to prevent adverse impact on the water quality.		
		•Proper shoring may need to be erected in order to prevent soil/mud from slipping into the		
		nullah and nearby watercourse.		
		•Supervisory staff should be assigned to station		
D 14	Vacto Managori			
D. W	Vaste Managem 5.4	Good Site Practices	Work Site / During Construction	
0.41	5.4	Recommendations for good site practices during the construction phase would include:	Period	v
		•Obtain relevant waste disposal permits from appropriate authorities, in accordance with the		
		Waste Disposal Ordinance (Cap. 354) and subsidiary Regulations and the Land (Miscellaneous		
		Provisions) Ordinance (Cap. 28);		
		•Provide staff training for proper waste management and chemical handling procedures;		
		•Provide sufficient waste disposal points and regular waste collection;		
		•Provide appropriate measures to minimize windblown litter and dust during transportation of		
		waste by either covering trucks or by transporting wastes in enclosed containers;		
		•Carry out regular cleaning and maintenance programme for drainage systems, sumps and oil		
		interceptors;		
		•Separate chemical wastes for special handling and disposed of to licensed facility for		

EIA Ref.	EM&A	Environmental Protection Measures	Location/ Timing	Status
	Log Ref.			
		treatment; and		
		•Employ licensed waste collector to collect waste.		
6.42	5.5	Waste Reduction Measures	Work Site/During Design &	\checkmark
		Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:	Construction Period	
		•Design foundation works that could minimise the amount of excavated material to be generated;		
		•Provide training to workers on the importance of site cleanliness and appropriate waste		
		management procedures, including waste reduction, reuse and recycling;		
		•Sort out demolition debris and excavated materials from demolition works to recover		
		reusable/ recyclable portions (i.e. soil, broken concrete, metal etc.);		
		•Segregate and store different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal;		
		•Encourage the collection of aluminium cans by providing separate labelled bins to enable this		
		waste to be segregated from other general refuse generated by the workforce; and		
		•Plan and stock construction materials carefully to minimize the amount of waste to be		
		generated and to avoid unnecessary generation of waste.		
6.44	5.7	Excavated and C&D Materials	Work Site/During Design &	√
		In order to minimise the impact resulting from collection and transportation of C&D material	Construction Period	
		for off-site disposal, the excavated material arising from site formation and foundation works		
		should be reused on-site as backfilling material and for landscaping works as far as practicable. Other mitigation requirements are listed below:		
		•A WMP, which becomes part of the Environmental Management Plan (EMP), should be		
		prepared in accordance with ETWB TCW No.19/2005;		
		•A recording system for the amount of wastes generated, recycled and disposed of (including		
		the disposal sites) should be adopted for easy tracking; and		
		•In order to monitor the disposal of excavated and C&D material at public filling facilities and		
		landfills and to control fly-tipping, a trip-ticket system should be adopted (refer to ETWB TCW		

EIA Ref.	EM&A	Environmental Protection Measures	Location/ Timing	Status
	Log Ref.			
		No. 31/2004).		
6.45 -	5.8 - 5.9	An EMP should be prepared and implemented in accordance with ETWB TCW No. 19/2005	Work Site/During Design &	\checkmark
6.46		which describes the arrangements for avoidance, reuse, recovery, recycling, storage, collection,	Construction Period	
		treatment and disposal of different categories of waste to be generated from construction		
		activities. The EMP should be submitted to the Supervising Officer (SO) and Supervising		
		Officer's Representative (SOR) for approval. The EMP should be reviewed regularly and		
		updated, preferably on a monthly basis.		
		A system should be devised to work for on-site sorting of excavated and C&D materials and		
		promptly removing all sorted and process materials arising from the construction activities to		
		minimize temporary stockpiling on-site. The system should be included in the EMP identifying		
		the source of generation, estimated quantity, arrangement for on-site sorting, collection,		
		temporary storage areas and frequency of collection by recycling Contractors or frequency of		
		removal off-site.		
6.47	5.10	Chemical Waste	Work Site / During Construction	<>
		Should chemical wastes be produced at the construction site, the Contractor would be required	Period	
		to register with EPD as a Chemical Waste Producer and to follow the guidelines stated in the		
		Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality		
		containers compatible with the chemical wastes should be used, and incompatible chemicals		
		should be stored separately. Appropriate labels should be securely attached on each chemical		
		waste container indicating the corresponding chemical characteristics of the chemical waste		
		(such as explosive, flammable, oxidizing, irritant, toxic, harmful, or corrosive). The Contractor		
		should employ a licensed collector to transport and dispose of the chemical wastes, to either the		
		CWTC in Tsing Yi, or any other licensed facilities, in accordance with the Waste Disposal		
		(Chemical Waste) General) Regulation.		
6.48	5.11	General Refuse	Work Site / During Construction	\checkmark
		General refuse should be stored in enclosed bins or compaction units separated from C&D	Period	
		material. A licensed waste collector should be employed by the contractor to remove general		
		refuse from the site, separately from C&D material. Preferably an enclosed and covered area		
		should be provided to reduce the occurrence of 'wind blown' light material.		
E. La	andscape and	d Visual		
7.99 &	Table 6.1	Construction Phase	Work Site / During Construction	N/A
Table 7.7		Topsoil, where identified, should be stripped and stored for re-use in the construction of the	Period	

EIA Ref.	EM&A	Environmental Protection Measures	Location/ Timing	Status
	Log Ref.			
		soft landscape works, where practical		
		•Compensatory tree planting should be provided to compensate for felled trees.		
		- Compensation tree species shall be chosen from both indigenous and ornamental species		
		- Compensatory tree planting quantities shall be as per DLO approved requirement.		
		•Control of night-time lighting		
		•Erection of decorative screen hoarding compatible with the surrounding setting		
<i>F.</i> N	Noise		•	
8.25	7.3	Good Site Practice:	Work site/During Design &	\checkmark
		•Only well-maintained plant should be operated on-site and plant should be serviced	Construction Stages	
		regularly during the construction program;		
		•Mobile plant, if any, should be sited as far from noise sensitive receivers (NSRs) as possible;		
		•Machines and plant (such as trucks) that may be in intermittent use should be shut down		
		between work periods or should be throttled down to a minimum;		
		•Plant known to emit noise strongly in one direction should, wherever possible, be orientated		
		so that the noise is directed away from the nearby NSRs; and		
		•Material stockpiles and other structures should be effectively utilized, wherever practicable,		
		in screening noise from on-site construction activities.		

Remark:

- $\sqrt{}$ Compliance of Mitigation Measures
- <> Compliance of Mitigation but need improvement
- x Non-compliance of Mitigation Measures
- ▲ Non-compliance of Mitigation Measures but rectified by OSCAR Bioenergy JV
- Δ Deficiency of Mitigation Measures but rectified by OSCAR Bioenergy JV
- N/A Not Applicable in Reporting Period

Annex F2

Implementation Schedule of Mitigation Measures for Operation Phase

EIA Ref.	EM&A	Environmental Protection Measures	Location/ Timing	Status
	Log Ref.			
Summary c	of Environment	al Mitigation Measures in the EIA and EM&A Manual	·	·
A. A	ir Quality			
3.78	2.7 & 2.13	Air Pollution Control (Construction Dust) Regulation & Good Site Practices	OWTF Stacks/ During	\checkmark
	- 2.19	•Commissioning tests shall be conducted to confirm the centralized air pollution control unit,	Commissioning Stage	
		the cogen units, the standby flaring unit and ASP against the design emission levels as stated in Tables 2.2 - 2.5.		
		•Odour monitoring shall be conducted at the stack exhaust of the centralized air pollution		
		control unit weekly in the first month of the commissioning stage.		
3.78	2.7-2.12	Air Pollution Control and Stack Monitoring	During Operation	\checkmark
		•Stack monitoring shall be installed for the centralized air pollution control unit, cogen units and		
		ASP of OWTF to ensure that the air emissions from OWTF would meet the design emission		
		limits as well as EPD criteria.		
3.78	2.20- 2.28	•Odour Patrol at site boundary of OWTF	OWTF Site Boundary/During Operation (The need to continue the odour patrol after the end of the 2-year monitoring period would depend on the monitoring results and should be agreed with EPD)	N/A
	lazard to Life	1		•
4.103	3.4	Operation Phase •3m high fence should be constructed along the boundary facing the SHWWTW •Emergency evacuation procedures should be formulated and the Contractor should ensure on site staff should be familiar with these procedures. Diagram showing the escape routes to a safe place should be posted in the site notice boards and at the entrance/exit of site. A copy of the latest version emergency procedures should be dispatched to Tung Chung Fire Station for	Work Site / During Operation Period	\checkmark
		reference once available.The emergency procedures should specify means of providing a rapid and direct warning		

Annex F2 Summary of Mitigation Measures Implementation Schedule for Operation Phase

EIA Ref.	EM&A	Environmental Protection Measures	Location/ Timing	Status
	Log Ref.			
		(e.g. Siren and Flashing Light) to personnel on site in the event of chlorine gas release in the SHWWTW.		
		•The Contractor should establish a communication channel with the SHWWTW operation		
		personnel and FSD. In case of any hazardous incidents in the treatment works, operation		
		personnel of SHWWTW should advise the Contractor to inform personnel on site to proceed with emergency procedure. The Contractor should appoint a Liaison Officer to communicate		
		with FSD Incident Commander on site in case of emergency.		
		•Periodic drills should be coordinated and conducted to ensure all on site personnel are		
		familiar with the emergency procedures. Upon completion of the drills, a review on every step		
		taken should be conducted to identify area of improvement. Prior notice of periodic drills		
		should be given to Station Commander of Tung Chung Fire Station. Joint operational exercise with FSD and SHWWTW is recommended.		
С. И	Vater Quality			
5.44	4.5	Wastewater from Organic Waste Treatment Process	Work Site / During Design &	\checkmark
		The Project site will be equipped with an adequately sized wastewater treatment plant. A	Operation Period	
		high rate type of active sludge system specifically designed for the removal of nitrogen		
		components from the wastewater in combination with conversion of residual BOD and COD		
		would be deployed. The wastewater treatment plant would also be incorporated with		
		SHARON or annamox technology or equivalent to achieve high total overall nitrogen		
		removal. Wastewater generated from the OWTF (including wastewater from dewatering		
		process, leachate from waste reception area, condensate from biogas handling, wastewater		
		from scrubber of air treatment system and any surplus water from truck washing facility)		
		will be diverted to the wastewater treatment plant. Treated effluent will then be stored		
		temporarily in order to be used as process water within the plants. The storage volume		
		would be around 20 m3. Overflow from the tank will be discharged to foul sewers. The		
		polluting parameters in effluent shall be in compliance with the requirements specified in the		
		TM- DSS. The design, installation and operation of the wastewater treatment plant shall be		
		licensed under the Waste Disposal Ordinance and subject to the effluent monitoring as		
		required under the WPCO which is under the ambit of regional office (RO) of EPD. To		
		ensure that wastewater can be adequately treated and effluent from treatment plant can		
		meet the standards listed in TM- DSS, the following mitigation measure should be		
		conducted.		
		Cleaning and maintenance of treatment facilities should be conducted on a regular		
		basis to ensure that removal rate of each treatment facility would not be reduced.		
		• Cleaning and maintenance of pipelines should be carried out on a regular basis to		

EM&A Log Ref.	Environmental Protection Measures	Location/ Timing	Status
	 prevent block of pipeline and leaching of wastewater, and therefore prevent overflowed or leached wastewater discharging into nearby drainages and water streams. Regular site inspection should be conducted to ensure that no wastewater can be directly discharged into nearby water streams. 		
4.5	In the scrubber, spraying water should be re-circulated to minimize the need for external water. The spraying water would be collected at the bottom of the scrubber. Excess water would be discharged to the wastewater treatment plant as described in Section 5.54.	Work Site / During Design & Operation Period	\checkmark
4.5	The waste reception, treatment facilities and compost storages of OWTF should be located in enclosed buildings to prevent generation of contaminated rain runoff. All surface runoff such as washed water generated in the treatment processes areas should be properly collected and diverted to the on-site wastewater treatment plant as described in Section 5.54.	Work Site / During Design & Operation Period	\checkmark
4.5	All drainage system for collection and transferring wastewater generated in the OWTF to the on- site wastewater treatment plant as described in Section 5.54 should be capable of preventing clogging and easy maintenance and cleaning.	Work Site / During Design & Operation Period	V
laste Managen	nent a second	-	
5.12	Good Site PracticesGood operational practices should be adopted to Minimize waste management impacts:•Obtain the necessary waste disposal permits from the appropriate authorities, in accordancewith the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General)Regulation and the Land (Miscellaneous Provision) Ordinance (Cap. 28);•Nomination of an approved person to be responsible for good site practice, arrangements forcollection and effective disposal to an appropriate facility of all wastes generated at the site;•Use of a waste haulier licensed to collect specific category of waste;•A trip-ticket system should be included as one of the contractual requirements andimplemented by the Environmental Team to monitor the disposal of solid wastes at publicfilling facilities and landfills, and to control fly tipping. Reference should be made to ETWBTCW No. 31/2004.•Training of site personnel in proper waste management and chemical waste handlingprocedures;•Separation of chemical wastes for special handling and appropriate treatment at a licensedfacility;	During Operation Period	
	Log Ref. 4.5 4.5 4.5	Log Ref. prevent block of pipeline and leaching of wastewater, and therefore prevent overflowed or leached wastewater discharging into nearby drainages and water streams. 4.3 In the scrubber, spraying water should be conducted to ensure that no wastewater can be directly discharged into nearby water streams. 4.5 In the scrubber, spraying water should be re-circulated to minimize the need for external water. The spraying water would be collected at the bottom of the scrubber. Excess water would be discharged to the wastewater treatment plant as described in Section 5.54. 4.5 The waste reception, treatment facilities and compost storages of OWTF should be located in enclosed buildings to prevent generation of contaminated rain runoff. All surface runoff such as washed water generated in the treatment plant as described in Section 5.54. 4.5 All drainage system for collection and transferring wastewater generated in the OWTF to the onsite wastewater treatment plant as described in Section 5.54. 4.5 All drainage system for collection and transferring wastewater generated in the OWTF to the onsite wastewater treatment plant as described in Section 5.54. 5.12 Good operational practices should be adopted to Minimize waste management impacts: Obtain the necessary waste disposal permits from the appropriate authorities, in accordance with the Waste Disposal Ordinance (Cap. 354). Waste Disposal (Chemical Waste) (General) Regulation and the Land (Miscellaneous Provision) Ordinance (Cap. 28); 5.12 Good operational practices should be included as one of the contractual requirements and implemented by the Environmental Tea	Log Ref. Intervent block of pipeline and leaching of wastewater, and therefore prevent overflowed or leached wastewater discharging into nearby drainages and water streams. Intervent block of pipeline and leaching of wastewater, and therefore prevent overflowed or leached wastewater discharging into nearby drainages and water Work Site / During Design & 4.5 In the scrubber, spraying water should be conducted to ensure that no wastewater can be directly discharged to the wastewater treatment plant as described in Section 5.54. Work Site / During Design & Operation Period 4.5 The waste reception, treatment facilities and compost storages of OWTF should be located in enclosed buildings to prevent generation of contaminated rain runoff. All surface runoff such as washed water generated in the traatment processes areas should be properly collected and diverted to the on-site wastewater treatment plant as described in Section 5.54. Work Site / During Design & Operation Period 4.5 All drainage system for collection and transferring wastewater generated in the OWTF to the on- site wastewater treatment plant as described in Section 5.54. Work Site / During Design & Operation Period 5.12 Cood Site Practice Good operational practices should be adopted to Minimize waste management impacts: - Obtain the necessary waste disposal permits from the appropriate authorities, in accordance with the Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation and the Land (Miscellaneous Provision) Ordinance (Cap. 359); - Nomination of an approved person to be responsible for good site practice, arrangements for collection and effective disposal to an appropriate facility o

EIA Ref.	EM&A	Environmental Protection Measures	Location/ Timing	Status
	Log Ref.			
		interceptors;		
		•Provision of sufficient waste disposal points and regular collection for disposal;		
		•Adoption of appropriate measures to minimize windblown litter and dust during		
		transportation of waste, such as covering trucks or transporting wastes in enclosed containers;		
		and		
		•Implementation of a recording system for the amount of wastes generated, recycled and		
		disposed of (including the disposal sites).		
6.51	5.13	Waste Reduction Measures	During Operation Period	\checkmark
		Good management and control can prevent the generation of significant amounts of waste. It is		
		recommended that the following good operational practices should be adopted to ensure waste		
		reduction:		
		•Segregation and storage of different types of waste in different containers, skips or stockpiles		
		to enhance reuse or recycling of materials and their proper disposal;		
		•Encourage collection of aluminum cans, plastic bottles and packaging material (e.g. carton		
		boxes) and office paper by individual collectors. Separate labelled bins should be provided to		
		help segregate this waste from other general refuse generated by the work force; and		
		•Any unused chemicals or those with remaining functional capacity should be reused as far as		
6.52	5.14	practicable.		1
0.32	3.14	<u>Wastes Generated from Pre-Treatment Process</u>	Pre-Treatment Process/ During Operation Period	N
		Wastes generated from pre-treatment process should be recycled as far as possible. Wastes generated from pre- treatment process should also be separated from any chemical waste and	Operation renou	
		stored in covered skips. The recyclables should be collected by licensed collectors, while the rest		
		of the waste should be removed from the site on a daily basis to minimize odour, pest and litter		
		impacts. Open burning must be strictly prohibited.		
6.53-6.56	5.15-5.18	Chemical Wastes	Whole Site / During Operation	\checkmark
		•Chemical waste generated from machinery maintenance and servicing should be managed in	Period	
		accordance with Code of Practice on the Packaging, Labelling and storage of Chemical Wastes		
		under the provisions of Waste Disposal (Chemical Waste) (General) Regulation. The chemical		
		waste should be collected by drum-type containers and removed by licensed chemical waste		
		contractors.		
		•Plant / equipment maintenance schedules should be planned in order to minimize the		

EIA Ref.	EM&A	Environmental Protection Measures	Location/ Timing	Status
	Log Ref.			
		generation of chemical waste.		
		•Non-recyclable chemical wastes and lubricants should be disposed of at appropriate facilities,		
		such as CWTC. Copies or counterfoils from collection receipts issued by the licensed waste		
		collector should be kept for recording purpose.		
		•Recyclable chemical waste will be transported off-site for treatment by a licensed collector. The		
		Contractor will need to register with EPD as a chemical waste producer. Where possible,		
		chemical wastes (e.g. waste lubricants) would be recycled at appropriate facilities, such as		
		Dunwell's oil re-refinery.		
6.57-6.58	5.19-5.20	General Refuse	Whole Site / During Operation	\checkmark
		•Waste generated in offices should be reduced through segregation and collection of recyclables.	Period	
		To promote the recycling of wastes such as used paper, aluminum cans and plastic bottles, it is		
		recommended that recycling bins should be clearly labelled and placed at locations with easy		
		access. For the collection of recyclable materials, they should be collected by licensed collectors.		
		•General refuse, other than segregated recyclable wastes, should be separated from any chemical		
		waste and stored in covered skips. The general refuse should be removed from the site on a		
		daily basis to minimize odour, pest and litter impacts. Also, open burning of refuse must be		
		strictly prohibited.		
		Contamination Preventive Measures		1
6.65	5.21 (i)	<u>Fuel Oil Containers</u> •Fuel oil should be stored in suitable containers.	Fuel Oil Storage Containers	
		Fuel oil should be stored in suitable containers.All fuel oil containers should be securely closed.	/During Operation Period	
		•Appropriate labels showing the name of fuel oil should be posted on the containers.		
		•Drip trays should be provided for all containers.		
6.65	5.21 (ii)	Storage Area	Fuel Oil Storage Area / During	\checkmark
		•Distance between the fuel oil refuelling points and the fuel oil containers should be minimized.	Operation Period	
		•The storage area should be used for fuel oil storage only.		
		•No surface water drains or foul sewers should be connected to the storage area.		
		•The storage area should be enclosed by three sides by a wall and have an impermeable floor or		
		surface.		
6.65	5.21 (iii)	Fuel Oil Spillage Response	Whole Site / During Operation	\checkmark
		An Oil Spill Response Plan should be prepared by the operator to document the appropriate	Phase	

EIA Ref.	EM&A	Environmental Protection Measures	Location/ Timing	Status
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		response procedures for oil spillage incident in detail. General procedures to be taken in case of		
		fuel oil spillage are presented below.		
		• <u>Training</u>		
		Training on oil spill response actions should be given to relevant staff. The training		
		should cover the followings:		
		- Tools & resources to combat oil spillage and fire, e.g. locations of oil spill		
		handling equipment and firefighting equipment;		
		- General methods to deal with oil spillage and fire incidents;		
		- Procedures for emergency drills in the event of oil spills and fire; and		
		- Regular drills should be carried out.		
		<u>Communication</u>		
		Establish communication channel with the Fire Services Department (FSD) and EPD to		
		report any oil spillage incident so that necessary assistance from relevant department		
		could be quickly sought.		
		<u>Response Procedure</u>		
		Any fuel oil spillage within the Project Site should be immediately reported to the Site		
		Manager with necessary details including location, source, possible cause and extent of		
		the spillage		
		Site Manager should immediately attend to the spillage and initiate any appropriate		
		action to confine and clean up the spillage. The response procedures should include the		
		following:		
		- Identify and isolate the source of spillage as soon as possible.		
		- Contain the oil spillage and avoid infiltration into soil / groundwater and		
		discharge to storm water channels.		
		- Remove the oil spillage.		
		- Clean up the contaminated area.		
		- If the oil spillage occurs during refuelling, the refuelling operation should		
		immediately be stopped.		
		- Recovered contaminated fuel oil and the associated material to remove the		
		spilled oil should be considered as chemical waste. The handling and		
		disposal procedures for chemical wastes are discussed in the following		
		paragraphs.		
6.66	5.22 (i)	Chemicals and Chemical Wastes Handling & Storage	Whole Site / During Operation	<>

EIA Ref.	EM&A	Environmental Protection Measures	Location/ Timing	Status
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		 Chemicals and chemical wastes should only be stored in suitable containers in purpose-built areas. The storage of chemical wastes should comply with the requirements of the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. The storage areas for chemicals and chemical wastes should have an impermeable floor or surface. The impermeable floor I surface should possess the following properties: Not liable to chemically react with the materials and their containers to be stored. Able to withstand normal loading and physical damage caused by container handling The integrity and condition of the impermeable floor or surface should be inspected at regular intervals to ensure that it is satisfactorily maintained For liquid chemicals and chemical wastes storage, the storage area should be bonded to contain at least 110% of the storage capacity of the largest containers or 20% of the total quantity of the chemicals/chemical wastes stored, whichever is the greater. Storage container should be checked at regular intervals for their structural integrity and to ensure that the caps or fill points are tightly closed. Chemical handling should be conducted by trained workers under supervision. 	Period	
6.66	5.22 (ii)	Chemicals and Chemical Wastes Spillage Response A Chemicals and / or Chemical Wastes Spillage Response Plan should be prepared by the operator to document in detail the appropriate response procedures for chemicals or chemical wastes spillage incidents. General procedures to be undertaken in case of chemicals I chemical waste spillages are presented below • Training • Training on spill response actions should be given to relevant staff. The training should cover the followings: • Tools & resources to handle spillage, e.g. locations of spill handling equipment; • General methods to deal with spillage; and • Procedures for emergency drills in the event of spills. • Communication Establish communication channel with Fire Services Department (FSD) and EPD to report the spillage incident so that necessary assistance from relevant department	Whole Site / During Operation Period	√

EIA Ref. EM&A	Environmental Protection Measures	Location/ Timing	Status
Log Ref.			
6.67 - 6.69 5.23 - 5.25	 could be quickly sought. Response Procedures Any spillage within OWTF site should be reported to the Site Manager. Site Manager shall attend to the spillage and initiate any appropriate actions needed to confine and clean up the spillage. The response procedures should include the followings: Identify and isolate the source of spillage as soon as possible; Contain the spillage and avoid infiltration into soil / groundwater and discharge to storm water channels (in case the spillage occurs at locations out of the designated storage areas); Remove the spillage; the removal method / procedures documented in the Material Safety Data Sheet (MSDS) of the chemicals spilled should be observed; Clean up the contaminated area (in case the spillage occurs at locations out of the designated storage areas); and The waste arising from the cleanup operation should be considered as chemical wastes. Incident Record After any spillage, an incident report should be prepared by the Site Manager. The incident report should contain details of the incident including the cause of the incident, the material spilled and estimated spillage amount, and also the response actions undertaken. The incident record should be kept carefully and able to be retrieved when necessary. The incident report should provide sufficient details for the evaluation of any environmental impacts due to the spillage and assessment of the effectiveness of measures taken. In case any spillage or accidents results in significant land contamination, EPD should be informed immediately and the Project operator should be responsible for the cleanup of the affected area. The responses procedures described in Sections 6.65 - 6.66 of the EIA Report should be followed accordingly together with the land contamination assessment and remediation guidelines stipulated in the <i>Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Mana</i>	Whole Site / During Operation Period	\checkmark

EIA Ref.	EM&A	Environmental Protection Measures	Location/ Timing	Status
	Log Ref.			
7.98 &	Table 6.2	Operation Phase	Within Project Area / During	
Table 7.8		 Aesthetic design of the facade, including its colour theme, pattern, texture, materials, finishing and associated structures to harmonize with the surrounding settings Grass / groundcover planting to soften the roof Heavy standard tree planting to screen proposed associated structures Grasscrete paving to soften the harshness of large paved surface areas wherever possible 	Design & Operation Stages	

Remark:

- $\sqrt{}$ Compliance of Mitigation Measures
- <> Compliance of Mitigation but need improvement
- x Non-compliance of Mitigation Measures
- ▲ Non-compliance of Mitigation Measures but rectified by OSCAR Bioenergy JV
- Δ Deficiency of Mitigation Measures but rectified by OSCAR Bioenergy JV
- N/A Not Applicable in Reporting Period