

Contract No. EP/SP/66/12 Integrated Waste Management Facilities, Phase 1 Monthly EM&A Report No.67



吉寶西格斯-振華聯營公司 KEPPEL SEGHERS - ZHEN HUA JOINT VENTURE

Monthly EM&A Report No.67 (Period from 1 January to 31 January 2024)

(Clause 3.3, Further Environmental Permit FEP-01/429/2012/A)

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	Prepared by:	Certified by:	Verified by:
Name	Joe Ho	F.C. Tsang	Mandy To
Position	Environmental Team	Environmental Team Leader	Independent Environmental Checker
Signature	Jæ.	Toay Failbeary	Mandy 2.
Date:	9 February 2024	9 February 2024	9 February 2024

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Revision History

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EXECUTIVE SUMMARY

Introduction

- A1. The Project, Integrated Waste Management Facility (IWMF), is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and is currently governed by a Further Environmental Permit (FEP No. FEP-01/429/2012/A) for the construction and operation of the Project.
- A2. In accordance with the Updated Environmental Monitoring and Audit (EM&A) Manual for the Project, EM&A works for marine water quality, noise, waste management and ecology should be carried out by Environmental Team (ET), Acuity Sustainability Consulting Limited (ASCL), during the construction phase of the Project.
- A3. This is the 67th Monthly EM&A Report, prepared by ASCL, for the Project summarizing the monitoring results and audit findings of the EM&A programme at and around Shek Kwu Chau (SKC) during the reporting period from 1 January to 31 January 2024.

Summary of Main Works Undertaken & Key Mitigation Measures Implemented

- A4. Key activities carried out in this reporting period for the Project included the following:
 - Reclamation Area:
 - Foundation works (including Driven H Pile and Socketed H Pile)
 - Pile cap construction
 - Structural steel work
 - Superstructure construction
 - Seawall Portion:
 - Caisson extension works, from +3mPD to +6mPD, at Seawall A and B
 - Construction of wave wall along the vertical seawall above +3mPD
- A5. The key environmental mitigation measures implemented for the Project in this reporting period associated with the construction activities include:
 - Reduction of noise from equipment and machinery on-site;
 - Sorting, recycling, storage and disposal of general refuse and construction waste;
 - Management of chemicals and avoidance of oil spillage on-site;
 - Confirmation of the absence of silt content in the rock filling material and the filling work is properly conducted;
 - Dust suppression measures for exposed earth surface and stockpile of dusty material; and
 - Site runoff control measure during rainstorm.

Summary of Exceedance & Investigation & Follow-up

- A6. The EM&A works for construction waste, noise monitoring and White-Bellied Sea Eagle (WBSE were conducted during the reporting period in accordance with the Updated EM&A Manual.
- A7. No exceedance of the Action or Limit Levels in relation to noise, construction waste and WBSE monitoring was recorded in the reporting month.
- A8. Weekly site inspections of the construction work by ET were carried out on 02, 09, 16, 23 and 30 January 2024 to audit the mitigation measures implementation status. Monthly joint site inspection was carried out on 16 January 2024 by ET and IEC. Observations were recorded in the site inspection checklists and provided to the contractors together with the appropriate follow-up actions where necessary.

Complaint Handling and Prosecution

- A9. No project-related environmental complaint was received during the reporting period.
- A10. Neither notifications of summons nor prosecution was received for the Project.

Reporting Change

A11. As confirmed with Contractor, no marine construction work will be carried out from January to March 2024 tentatively. An updated EM&A arrangement to extend the temporary suspension of water quality and line-transect monitoring from January to March 2024 was submitted to EPD on 06 December 2023. EPD advised no objection on the extension verbally on 27 December 2023 and replied in written record on 09 January 2024. The water quality and line-transect monitoring were then temporarily suspended from 31 December 2023 onward. A two-week advance notice will be made by the Contractor prior to resumption of marine construction works. The water quality monitoring and line-transection monitoring will be resumed upon the resumption of marine construction works with updated EM&A schedule within one day after receiving the notification from contractor.

Summary of Upcoming Key Issues and Key Mitigation Measures

- A12. Key activities anticipated in the next reporting period for the Project will include the following:
 - Reclamation Area:
 - Pile cap construction
 - Structural steel work
 - Superstructure construction
 - Seawall Portion:
 - Caisson extension works, from +3mPD to +6mPD, at Seawall A and B
 - Construction of wave wall along the vertical seawall above +3mPD

- A13. The key environmental mitigation measures for the Project in the coming reporting period associated with the construction activities will include:
 - Reduction of noise from equipment and machinery on-site;
 - Sorting, recycling, storage and disposal of general refuse and construction waste;
 - Management of chemicals and avoidance of oil spillage on-site, especially under heavy rains and adverse weather;
 - Dust control of exposed soil surface and stockpile of dusty material at reclaimed area;
 - Dust suppression measures for exposed earth surface and stockpile of dusty material; and
 - Site runoff control measure during construction works.

1. BASIC PROJECT INFORMATION

1.1 Background

- 1.1.1 The Government of Hong Kong SAR will develop the Integrated Waste Management Facilities (IWMF) Phase 1 (hereafter "the Project") with incineration to achieve substantial bulk reduction of unavoidable municipal solid waste (MSW) and to recover energy from the incineration process. The IWMF will be on an artificial island to be formed by reclamation at the south-western coast of Shek Kwu Chau. Keppel Seghers Zhen Hua Joint Venture (KSZHJV) was awarded the contract under Contract No. EP/SP/66/12 Integrated Waste Management Facilities Phase 1 to construct and operate the Project.
- 1.1.2 An environmental impact assessment (EIA) study for the Project has been conducted and the EIA Report was approved under the Environmental Impact Assessment Ordinance on 17 January 2012. An Environmental Permit (EP) (EP No.: EP-429/2012) was granted to EPD on 19 January 2012 for the construction and operation of the Project. Subsequently, the EP was amended (EP No.: EP-429/2012/A) and a further EP (FEP) (EP No.: FEP-01/429/2012/A) was granted to the Keppel Seghers – Zhen Hua Joint Venture (KSZHJV) on 27 December 2017.
- 1.1.3 A further EP (FEP) (EP No.: FEP-02/429/2012/A) on Submarine Cable for the Development of the Project was granted to CLP Power Hong Kong Limited (CLP) on 17 January 2020.
- 1.1.4 The key design and construction elements of the Project include the Design and the Works including but not limited to the design, engineering procurement, construction, testing and commissioning of the Facility including:
 - Ground Treatment works;
 - Seawall and Breakwater construction;
 - Non-dredged Reclamation;
 - Other Marine works and Harbour and Port Facilities;
 - Site formation;
 - Municipal Solid Waste (MSW) Treatment Processes;
 - Energy Recovery for Power Generation and Surplus Electricity export;
 - Wastewater treatment process;
 - Desalination and water treatment process;
 - Civil works;
 - Building and Structural works;
 - Electrical and Mechanical works;
 - Building Services;
 - Architectural and Landscaping works; and
 - All other design and works required for the operation and maintenance of the Facility according to the Contract requirements.

1.1.5 The location of the IWMF near Shek Kwu Chau (SKC) and general layout of IWMF are shown in **Figure 1.1** and **Figure 1.2** respectively.

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Keppel Seghers – Zhen Hua Joint Venture

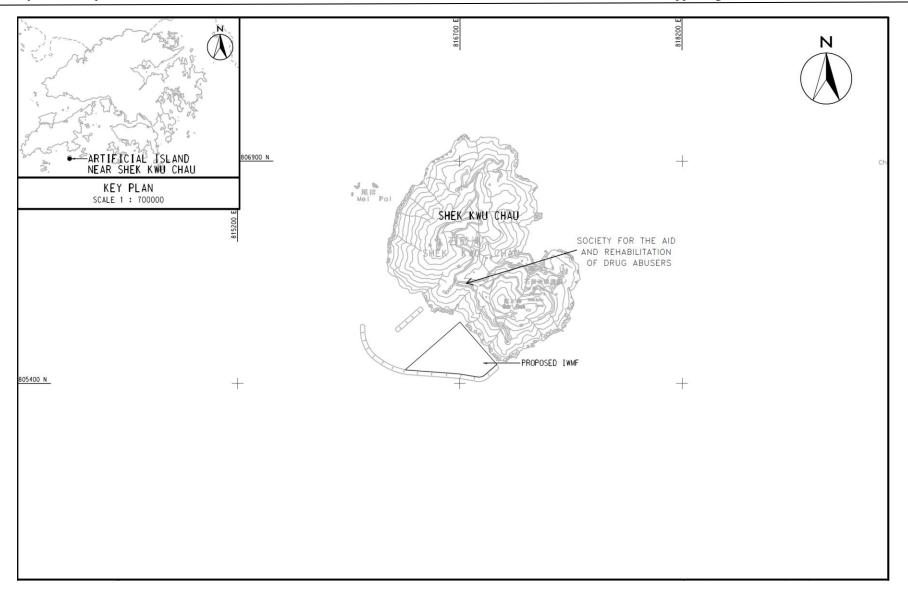


Figure 1.1 Location of the IWMF at the Artificial Island near SKC

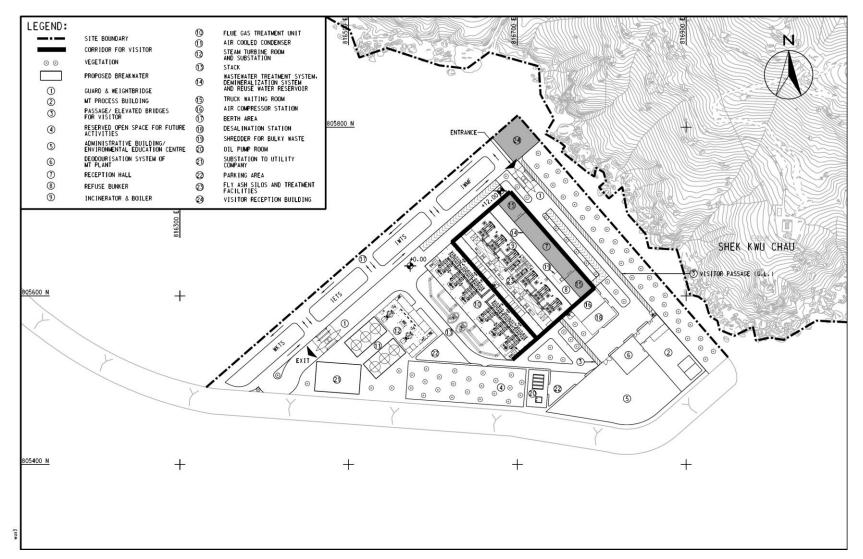


Figure 1.2 General Layout of the IWMF at the Artificial Island near SKC

1.2 The Reporting Scope

- 1.2.1 This is the 67th Monthly EM&A Report for the Project which summarizes the key findings of the EM&A programme during the reporting period from 01 January 2024 to 31 January 2024.
- 1.3 Project Organization
- 1.3.1 The Project Organization structure for Construction Phase is presented in **Figure 1.3**.

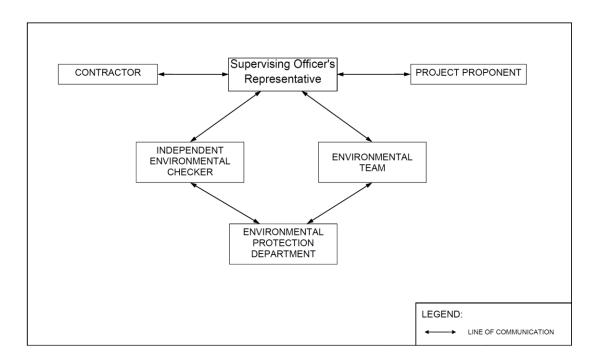


Figure 1.3 Project Organization Chart

1.3.2 Contact details of the key personnel are presented in **Table 1.1** below:

Table 1.1 Contact Details of Key Personnel

Party	Position	Name	Telephone no.
Keppel Seghers – Zhen Hua Joint Venture	Project Manager	Peter Chung	2192-0603
Acuity Sustainability Consulting Limited	Environmental Team Leader	F.C. Tsang	2698-6833
ERM-Hong Kong, Limited	Independent Environmental Checker	Mandy To	2271-3000

1.4 Summary of Construction Works

1.4.1 Details of the major construction activities undertaken in this reporting period are shown in **Table 1.2** and **Figure 1.4** below. The construction programme is presented in **Appendix A**.

 Table 1.2 Summary of the Construction Activities Undertaken during the Reporting Month

Location of works	ocation of works Construction activities undertaken	
Reclamation area	Pile cap construction	On-going
	• Structural steel work	On-going
	• Superstructure construction	On-going
Seawall portion	• Caisson extension works, from +3mPD to +6mPD, at Seawall A and B	On-going
	• Construction of wave wall along the vertical seawall above +3mPD	• On-going

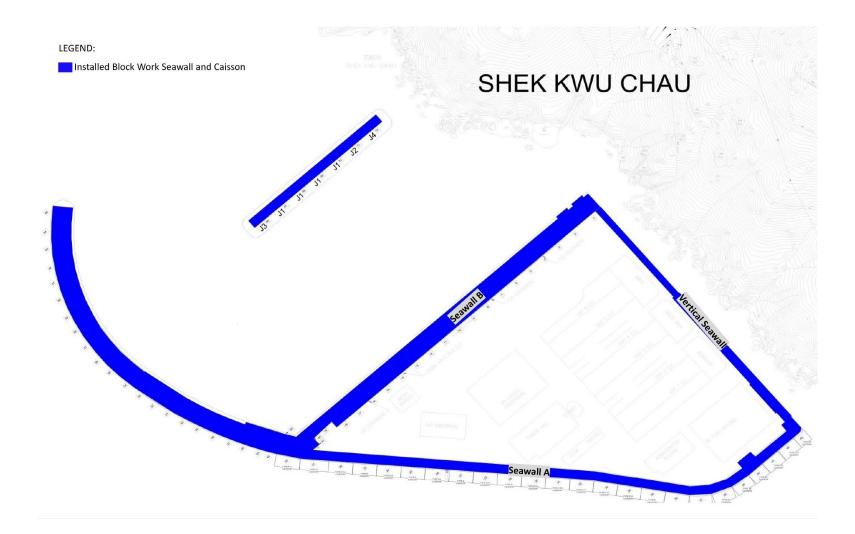


Figure 1.4 Location of Major Construction Activities Undertaken during the Reporting Month

1.5 Summary of Environmental Status

1.5.1 A summary of the valid permits, licences, and /or notifications on environmental protection for this Project is presented in **Table 1.3**

Table 1.3 Summary of the Status of Valid Environmental Licence, Notification, Permit and Documentations

Permit/ Licences/	Reference	Validity	Remarks
Notification		Period	
Variation of	EP-429/2012/A	Throughout	
Environmental Permit		the Contract	
Further	FEP-01/429/2012/A	Throughout	
Environmental Permit		the Contract	
Notification of	Ref No.: 428778	15/12/2017 -	
Construction Works		22/09/2024	
under the Air			
Pollution Control			
(Construction Dust)			
Regulation (Form			
NA)			
Wastewater Discharge	WT00039438-2021	15/02/2022 -	
Licence		28/02/2027	
Chemical Waste	WPN0017-933-K3301-	Throughout	
Producer Registration	01	the Contract	
	WPN5213-961-K3301-	Throughout	
	02	the Contract	
	WPN5296-839-K3301-	Throughout	
	03	the Contract	
Construction Noise	GW-RS0611-23	27/07/2023-	Portion 1, 1A & 1B
Permit (24 hours)		26/01/2024	
Construction Noise	PP-RS0016-23	06/11/2023 -	Portion 1
Permit (Percussive		04/05/2025	
piling)			
Billing Account for	A/C No.:7029768	Throughout	
Disposal of		the Contract	
Construction Waste			

1.5.2 The status for all environmental aspects is presented in **Table 1.4**.

Parameters	Status		
Water Quality	Durvas		
Baseline Monitoring under Updated EM&A Manual and Detailed Plan on DCM	The baseline water quality monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under FEP Condition 3.4		
Impact Monitoring	As confirmed with Contractor, no marine construction work will be carried out from January to March 2024 tentatively. An updated EM&A arrangement to extend the temporary suspension of water quality and line-transect monitoring from January to March 2024 was submitted to EPD on 06 December 2023. EPD advised objection on the extension verbally on 27 December 2023 and replied in written record on 09 January 2024. The water quality and line-transect monitoring were then temporarily suspended from 31 December 2023 onward. A two- week advance notice will be made by the Contractor prior to resumption of marine construction works. The water quality monitoring and line-transection monitoring will be resumed upon the resumption of marine construction works. ET will notify the resumption of marine construction works with updated EM&A schedule within one day after receiving the notification from contractor		
Post DCM Monitoring	All DCM was completed on 14 October 2020, regular DCM monitoring for further 4 weeks (i.e form 16 October 2020 to 14 November 2020) was completed according to the approved Detailed Plan on Deep Cement Mixing		
Initial Intensive DCM Monitoring	Conducted from 11 February 2019 to 10 March 2019, had not been resumed since there was no DCM related parameter exceeding the AL/LL.		
Baseline Water Quality of wet season	Completed over 13 August 2018 to 7 September 2018		
Noise			
Baseline Monitoring	The baseline noise monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under FEP Condition 3.4		
Impact Monitoring	On-going		
Waste Management			
Mitigation Measures in Waste Monitoring Plan	On-going		
Coral			
Pre-translocation Survey and Coral Mapping	The Coral Translocation Plan was submitted and approved by EPD under EP Condition 2.12		
Coral Translocation	Completed on 28 March 2018		
Post-Translocation Coral Monitoring	Survey affected by missing of translocated and tagged coral colonies after typhoons in September 2018, completed on 28 March 2019.		
Pre-construction Coral Survey and Tagging	Completed on 26 June 2018		
Tagged Coral Monitoring	Survey obstructed due to missing of tagged coral colonies after typhoons in September 2018		
Coral Survey and Re-	Re-tagging at Indirect Impact Site was conducted on 23		

Table 1.4 Summary of Status for Key Environmental Aspects under the Updated EM&A Manual

Parameters	Status
tagging	November and Re-tagging at Control Site was conducted on 3 December 2018.
Post Re-tagging Coral	On-going
Monitoring	
Marine Mammal	
Vessel-based Line-transect Survey Baseline Monitoring	The baseline marine mammal monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under FEP Condition 3.4
Vessel-based Line-transect Survey Impact Monitoring	Temporarily suspended since 30 March 2023, as no marine construction works as defined in the approved EIA report (AEIAR-163/2012) and the Updated EM&A Manual was conducted in this reporting month.
Land-based Theodolite Tracking	30 days of theodolite surveys were started on 21 Feb 2019 and completed in May 2019.
Passive Acoustic Monitoring	30 days of PAM surveys were started on 1 May 2019 and completed by the end of May 2019.
White-bellied Sea Eagle	
Baseline Monitoring	The baseline WBSE monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under FEP Condition 3.4
Impact Monitoring	On-going, since incubation activity was observed on 27 December 2023, the frequency of impact monitoring will changed to weekly monitoring.
Environmental Audit	
Site Inspection covering Measures of Air Quality, Noise Impact, Water Quality, Waste, Ecological Quality, Fisheries, Landscape and Visual	On-going
Mitigation Measures in Marine Mammal Watching Plan (MMWP)	Installation of caisson No.19 was completed on 18 March 2021, which the reclamation area had been totally enclosed by permanent structure. Floating type silt curtain at marine access was removed on 18 March 2021. No enclosed area shall be formed by deployment of silt curtain for the remaining works programme.
Mitigation Measures in Detailed Monitoring Programme on Finless Porpoise (DMPFP)	Installation of caisson No.19 was completed on 18 March 2021, which the reclamation area had been totally enclosed by permanent structure. Floating type silt curtain at marine access was removed on 18 March 2021. No enclosed area shall be formed by deployment of silt curtain for the remaining works programme.
Mitigation Measures in Vessel Travel Details	On-going
Daily Site Audit and Monitoring for Dredging Work	Completed

1.5.3 Other than the EM&A work by ET, environmental briefings, trainings and regular environmental management meetings were conducted, in order to enhance environmental awareness and closely monitor the environmental performance of the contractors.

1.5.4 The EM&A programme has been implemented in accordance with the recommendations presented in the approved EIA Report and the Updated EM&A Manual. A summary of implementation status of the environmental mitigation measures for the construction phase of the Project during the reporting period is provided in **Appendix B**.

2. MARINE WATER QUALITY MONITORING

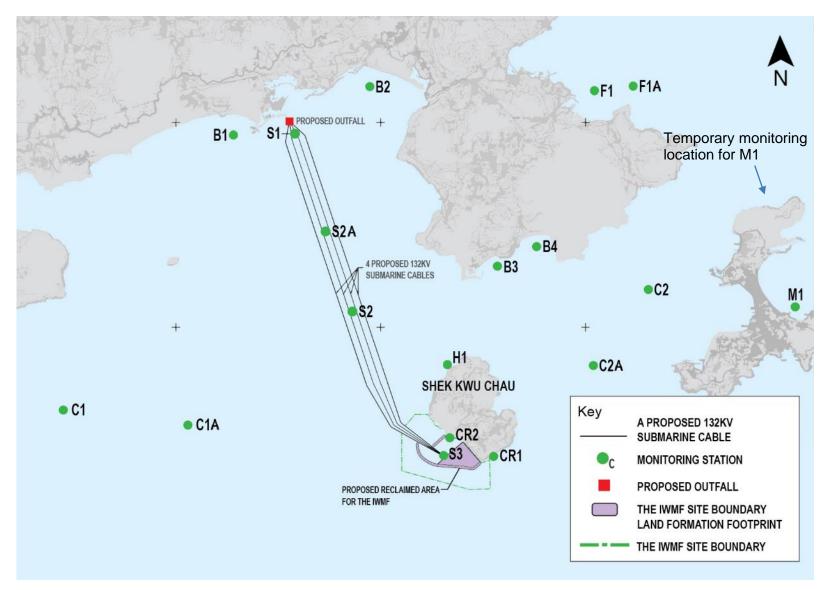
- 2.1 Water Quality Requirements
- 2.1.1 To ensure no adverse water quality impact, water quality monitoring is recommended to be carried out at the nearby water sensitive receivers (WSRs) during construction phase including proposed reclamation, breakwater construction, etc.
- 2.1.2 In accordance with the Updated EM&A Manual, impact water quality monitoring were conducted 3 days per week at mid-flood and mid-ebb tide to obtain impact water quality levels at the eleven monitoring stations during general water quality monitoring for the reporting period.
- 2.2 Water Quality Parameters, Time, Frequency
- 2.2.1 Dissolved Oxygen (DO), Turbidity, Suspended Solids (SS), Salinity and pH have been undertaken at the eleven monitoring stations during general water quality monitoring.
- 2.2.2 DO, temperature, salinity, turbidity and pH have been measured in-situ and the SS, has been assayed in a HOKLAS laboratory.
- 2.2.3 In associate with the water quality parameters, other relevant data were also measured, such as monitoring location/position, time, water depth, sampling depth, tidal stages, weather conditions and any special phenomena or work underway nearby were also recorded. The monitoring schedule is provided in **Appendix C**.
- 2.2.4 Impact water quality monitoring was conducted 3 days per week in the reporting period. All parameters were monitored during mid-flood and mid-ebb tides at three water depths for general water quality monitoring. The interval between two sets of monitoring has not been less than 36 hours.
- 2.2.5 **Table 2.1** summarizes the monitoring parameters, frequency and duration of the impact water quality monitoring during construction phase.

Parameter, unit	Frequency	No. of Depths
 Water Depth (m) Temperature (°C) Salinity (ppt) pH (pH unit) Dissolved Oxygen (DO) (mg/L and % of saturation) Turbidity (NTU) Suspended Solids (SS), mg/L 	General water quality monitoring : 3 days per week, at mid-flood and mid-ebb tides	3 water depths: 1m below sea surface, mid-depth and 1m above sea bed.If the water depth is less than 3m, mid-depth sampling only.If water depth less than 6m, mid-depth may be omitted.

 Table 2.1 Water Quality Monitoring Parameters, Frequency and Duration

2.3 Water Quality Monitoring Locations

2.3.1 Impact water quality monitoring was conducted at eleven monitoring locations (B1-B4, H1, C1, C2, F1, CR1, CR2 & M1) during general water quality monitoring in the reporting period as shown in **Figure 2.1**. As per the relocation proposal verified by IEC and approved by EPD, the monitoring location C1, C2, S2, F1 are relocated at C1A, C2A, S2A, F1A as equivalent points respectively to clear up the concerns from stakeholders.





2.3.2 B1 to B4 are located at 4 beaches respectively at the southern shore of Lantau Island. Monitoring station H1 is located at the horseshoe crab habitat at northern SKC, while CR1 and CR2 are located at the coral communities at southwestern shore of SKC. Monitoring station F1 is located at the Cheung Sha Wan Fish Culture Zone while monitoring station M1 is located at Tung Wan at Cheung Chau. Monitoring station F1A is relocated for F1 at the Cheung Sha Wan Fish Culture Zone. S1, S2 and S3 are located at the northern landing site, midway and southern landing site of the proposed submarine cable, respectively. S2A is the relocated monitoring station of S2 which represents the midway landing site of the proposed submarine cable. S1, S2/S2A and S3 are required for monitoring due to the laying of submarine cable. Control stations C1 and C2 at far field locations are for comparison. Control stations C1A and C2A are relocated for C1 and C2 respectively as equivalent far field locations for comparison.

2.3.3 Fourteen monitoring stations are listed in **Table 2.2**.

Monitoring station	Description	Easting	Northing
B1	Beach – Cheung Sha Lower	813342	810316
B2	Beach – Pui O	815340	811025
B3	Beach – Yi Long Wan	817210	808395
B4	Beach – Tai Long Wan	817784	808682
H1	Horseshoe Crab – Shek Kwu Chau	816477	806953
C1	Control Station (note i)	810850	806288
C1A	Relocated Control Station	812823	806300
C2	Control Station (note ii)	819421	808053
C2A	Relocated Control Station	818869	806808
F1	Cheung Sha Wan Fish Culture Zone (note iii)	818631	810966
F1A	Cheung Sha Wan Fish Culture Zone	819109	810924
S1	Submarine Cable Landing Site	814245	810335
S2	Submarine Cable (note iv)	815076	807747
S2A	Submarine Cable	814808	808515
\$3	Submarine Cable Landing Site	816420	805621
CR1	Coral	817144	805597
CR2	Coral	816512	805882
M1	Tung Wan	821572	807799

Table 2.2 Locations of Marine Water Quality Stations

Note:

i. Relocated to C1A in Mar 2019

ii. Relocated to C2A in Mar 2019

iii. Relocated to S2A in Mar 2019

iv. Relocated to F1A in Mar 2019

2.4 Impact Monitoring Methodology

- 2.4.1 General water quality monitoring was conducted three days per week, at mid-flood and mid-ebb tides, at the designated water quality monitoring stations during the reporting period.
- 2.4.2 The interval between 2 sets of monitoring was not less than 36 hours. Sampling was collected at three water depths, namely, 1m below water surface, mid-depth and 1m above seabed, except where the water depth is less than 6m, the mid-depth was omitted. If the water depth was less than 3m, only the mid-depth station was monitored.
- 2.4.3 Duplicate in-situ measurements and water sampling were carried out in each sampling event. The monitoring probes were retrieved out of water after the first measurement and then redeployed for the second measurement. When the difference in value between the first and second readings of DO or turbidity is more than 25% of the value of the first reading, the reading would be discarded and further readings would be taken.

In-situ Measurement

2.4.4 Levels of DO, pH, temperature, turbidity and salinity would be measured in-situ by portable and weatherproof measuring instrument, e.g. YSI ProDSS and Horiba U-53 Multiparameter complete with cable and sensor. (Refer to http://www.ysi.com/ProDSS for YSI ProDSS technical specification and https://static.horiba.com/fileadmin/Horiba/Products/Process and Environmental/Wat er_Pollution/Instruction_Manuals/U-50/U-50_SS_E.pdf for Horiba U-53 technical specification). Water current velocity and water current direction would be measured by portable and weatherproof current meter, e.g. SonTek Hydrosurveyor (Refer to https://www.sontek.com/hydrosurveyor for SonTek Hydrosurveyor M9 technical specification). Parameters measured by in-situ measurement is tabulated in Table 2.3

Parameter	Resolution	Range
Temperature	0.1 °C	-5-70 °C
Dissolved Oxygen (DO)	0.01 mg/L	0-50.0 mg/L
Turbidity	0.1 NTU	0-1000 NTU
pH	pH 0.01	pH 0-14
Salinity	0.01 ppt	0-40 ppt
Water Current Velocity	0.001m/s	±20m/s
Water Current Direction	$\pm 1^{\circ}$	$\pm 2^{\circ}$

Table 2.3 Parameters Measured by In-situ Measurement
--

Laboratory Analysis

2.4.5 Analysis of SS shall be carried out in a HOKLAS accredited laboratory. Sufficient water samples shall be collected at the monitoring stations for carrying out the laboratory determinations. The determination work shall be started within 24 hours after collection of the water samples. Analytical methods and detection limits for SS is presented in **Table 2.4**.

Table 2.4 Analytical Methods Applied to Water Quality Samples

Parameter	Analytical method	Detection Level
Suspended Solids, SS	APHA 2540 D ⁱ	1 mg/L

Footnote:

"APHA 2540 D" stands for American Public Health Association Standard Methods for the Examination of Water and Wastewater, 23rd Edition.

Field Log

- 2.4.6 Other relevant data was recorded, such as: monitoring location / position, time, water depth, weather conditions and any special phenomena underway near the monitoring station.
- 2.5 Monitoring Equipment
- 2.5.1 Equipment used in the impact water quality monitoring programme is summarized in **Table 2.5** below.

Table 2.5 Impact Water Quality Monitoring Equipment

Monitored Parameter	Equipment	Brand and Model
DO, Temperature, Salinity,	Multi-functional Meter	Horiba U-53
pH and Turbidity		YSI ProDSS Multi Parameter
Coordinates	Positioning Equipment	Garmin GPSMAP 78s
Water depth	Water Depth Detector	Hummingbird 160 Portable
SS	Water Sampler	Wildco 2 L Water Sampler
		with messenger

2.5.2 Dissolved Oxygen and Temperature Measuring Equipment

The instrument is a portable and weatherproof DO probe mounted on the multifunctional meter complete with cable and sensor and is powered by a DC supply source. The equipment was capable of measuring:

- A DO level in the range of 0 50 mg/L; and
- Temperature of -5 70 degree Celsius.

2.5.3 Turbidity Measurement Instrument

The instrument is a portable and weatherproof turbidity-measuring probe mounted on the multi-functional meter and is powered by a DC supply source. The instrument is equipped with a photoelectric sensor which is capable of measuring turbidity between 0 - 1000 NTU.

2.5.4 pH Measurement Instrument

The probe consists of a potentiometer, a glass electrode, a reference electrode and a temperature-compensating device mounted on the multi-functional meter. It is readable to 0.1 pH in a range of 0 to 14. Standard buffer solutions of at least pH 7 and pH 10 were used for calibration of the instrument before and after use.

2.5.5 Salinity Measurement Instrument

A portable salinometer mounted on the multi-functional meter capable of measuring salinity in the range of 0-40 parts per thousand (ppt) was provided for measuring salinity of the water at each monitoring location.

2.5.6 Sampler

The water sampler comprises a transparent PVC cylinder, with a capacity of not less than 2 litres, which can be effectively sealed with latex cups at both ends. The sampler has a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth.

2.5.7 Sample Containers and Storage

Water samples for SS were stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4°C without being frozen) and delivered to the laboratory and analysed as soon as possible after collection. Sufficient volume of samples was collected to achieve the detection limit stated in **Table 2.4**.

2.5.8 Water Depth Detector

A portable, battery-operated echo sounder was used for the determination of water depth at each designated monitoring station. This unit could either be hand-held or affixed to the bottom of the work boat, if the same vessel is to be used throughout the monitoring programme.

2.5.9 Monitoring Position Equipment

Hand-held digital Differential Global Positioning System (DGPS) with way point bearing indication and Radio Technical Commission for maritime (RTCM) Type 16 error message 'screen pop-up' facilities (for real-time auto-display of error messages and DGPS corrections from the Hong Kong Hydrographic Office) was provided and used to ensure that the water sampling locations were correct during the water quality monitoring work.

- 2.6 Maintenance and Calibration
- 2.6.1 The multi-functional meters were checked and calibrated before use. Multi-functional meters were certified by a laboratory accredited under HOKLAS or any other international accreditation scheme, and subsequently re-calibrated at three monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibration for a DO meter was carried out before commencement of monitoring and after completion of all measurements each day. Calibration was not conducted at each monitoring location as daily calibration is adequate for the type of DO meter employed.
- 2.6.2 Sufficient stocks of spare parts were provided and maintained for replacements when necessary. Backup monitoring equipment was prepared for uninterrupted monitoring during equipment maintenance or calibration during monitoring.

2.7 Action and Limit Levels

2.7.1 The Action and Limit Levels have been set based on the derivation criteria specified in the Updated EM&A Manual and Detailed DCM Plan, as shown in Table 2.6 below.

Parameters	Action	Limit
Construction Pl	hase Impact Monitoring	
DO in mg/L	\leq 5 %-ile of baseline data	≤ 4
SS in mg/L	\geq 95 %-ile of baseline data or 120% of control station's SS at the same tide of the same day of measurement, whichever is higher	\geq 99 %-ile of baseline data or 130% of control station's SS at the same tide of the same day of measurement, whichever is higher
Turbidity in NTU	\geq 95 %-ile of baseline data or 120% of control station's turbidity at the same tide of the same day of measurement, whichever is higher	\geq 99 %-ile of baseline data or 130% of control station's turbidity at the same tide of the same day of measurement, whichever is higher
Temperature in°C	1.8°C above the temperature recorded at representative control station at the same tide of the same day	2°C above the temperature recorded at representative control station at the same tide of the same day

Table 2.6 Criteria of Action and Limit Levels for Water Quality

2.7.2 Based on the baseline monitoring data and the derivation criteria specified above, the Action/Limit Levels have been derived and are presented in Table 2.7 and Table 2.8 for both dry seasons (October - March) and wet seasons (April - September).

Table 2	.7 Derive	d Action and Limit Levels for Wate	er Quality Monitoring (Dry Season)
P		A	T 1 1

Parameters	Action	Limit			
Construction Pha	Construction Phase Impact Monitoring				
DO in mg/L	≤ 7.13	\leq 4			
SS in mg/L	\geq 8 or 120% of control station's SS at the same tide of the same day of measurement, whichever is higher	\geq 10 or 130% of control station's SS at the same tide of the same day of measurement, whichever is higher			
Turbidity in NTU	\geq 5.6 or 120% of control station's turbidity at the same tide of the same day of measurement, whichever is higher	\geq 12.8 or 130% of control station's turbidity at the same tide of the same day of measurement, whichever is higher			
Temperature in°C	1.8°C above the temperature recorded at representative control station at the same tide of the same day	2° C above the temperature recorded at representative control station at the same tide of the same day			

Notes:

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"Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths. i.

ii. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.

iii. For turbidity, SS and Salinity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.

Parameters	Action	Limit
Construction Pha	ase Impact Monitoring	
DO in mg/L	\leq 5.28	\leq 4
SS in mg/L	\geq 12 or 120% of control station's SS at the same tide of the same day of measurement, whichever is higher	\geq 14 or 130% of control station's SS at the same tide of the same day of measurement, whichever is higher
Turbidity in NTU	\geq 4.0 or 120% of control station's turbidity at the same tide of the same day of measurement, whichever is higher	\geq 4.3 or 130% of control station's turbidity at the same tide of the same day of measurement, whichever is higher
Temperature in [°] C	1.8°C above the temperature recorded at representative control station at the same tide of the same day	2°C above the temperature recorded at representative control station at the same tide of the same day

Table 2.8 Derived Action and Limit Levels for Wat	er Ouality (Wet Season)
Tuble 110 Derried Heron and Emile Hereis for that	

Notes:

i. "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.

ii. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.iii. For turbidity, SS and Salinity, non-compliance of the water quality limits occurs when monitoring result is higher than

- the limits.
- 2.7.3 If exceedances were found during water quality monitoring, the actions in accordance with the Event and Action Plan shall be carried out according to **Appendix D**.
- 2.8 Monitoring Results and Observations
- 2.8.1 As confirmed by the Contractor on 14 October 2020, all DCM works was completed on 14 October 2020, the post DCM water quality monitoring was completed for further 4 weeks (i.e. from 16 October 2020 to 14 November 2020) according to the approved Detailed Plan on Deep Cement Mixing. As all DCM work and post DCM water quality monitoring were completed, no water quality monitoring was conducted at S1, S2A and S3 from 14 November 2020 onward. As no marine construction work will be carried out from January to March 2024 and EPD had no comment on temporary suspension of water quality monitoring on 27 December 2023, the water quality was then temporarily suspended from 31 December 2023 onward.

3. NOISE MONITORING

3.1 Monitoring Requirements

- 3.1.1 To ensure no adverse noise impact, noise monitoring is recommended to be carried out at the nearby noise sensitive receivers (NSRs) during construction phase.
- 3.1.2 In accordance with the Updated EM&A Manual, baseline noise level at the noise monitoring stations was established as presented in the Baseline Monitoring Report. Impact noise monitoring was conducted once per week in the form of 30-minutes measurements L_{eq}, L₁₀ and L₉₀ levels recorded at each monitoring station between 0700 and 1900 hours on normal weekdays.
- 3.1.3 In accordance with the Updated EM&A Manual, additional weekly impact monitoring should be carried out during respective restricted hours period (1900 0700 hours) if the construction works were conducted at evening and night time. Additional weekly noise monitoring was conducted once per week in the form of 5-minutes measurements L_{eq} , L_{10} and L_{90} levels recorded at each monitoring station between 1900 and 0700 hours as well as public holidays and Sundays.
- 3.2 Noise Monitoring Parameters, Time, Frequency
- 3.2.1 Impact noise monitoring was conducted weekly in the reporting period between 0700 and 1900 hours on normal weekdays. Additional impact noise monitoring was conducted weekly in the reporting period between 1900-0700 hours on all days as well as public holidays and Sundays.
- 3.2.2 Construction noise level measured in terms of the A-weighted equivalent continuous sound pressure level (L_{Aeq}). L_{eq 30min} was used as the monitoring parameter for the time period between 0700 and 1900 hours on normal weekdays. L_{eq 5min} was used as the monitoring parameter for the time period between 1900 and 0700 hours as well as public holidays and Sundays. **Table 3.1** summarizes the monitoring parameters, frequency and duration of the impact noise monitoring and additional impact noise monitoring. The monitoring schedule is provided in **Appendix C**.

Monitoring Station	Time	Duration	Parameters
	Day time: 0700-1900 hrs (during normal weekdays)	Once per week L _{eq 5min} /L _{eq 30min} (average of 6 consecutive L _{eq 5min})	L _{eq} , L ₁₀ & L ₉₀
M1/ N_S1, M2/ N_S2, M3/ N_S3	Evening time: 1900-2300 hrs (including normal weekdays, also public holidays and Sundays)	Once per week L _{eq 5min} (3 sets of L _{eq 5min})	L _{eq} , L ₁₀ & L ₉₀
	Night time: 2300-0700 hrs (including normal weekdays, also public holidays and Sundays)	Once per week L _{eq 5min} (3 sets of L _{eq} _{5min})	L _{eq} , L ₁₀ & L ₉₀

Table 3.1 Noise Monitoring Parameters, Time, Frequency and Duration

3.3 Noise Monitoring Locations

3.3.1 Three noise monitoring locations for impact monitoring and additional impact monitoring at the nearby sensitive receivers are shown in Figure 3.1.

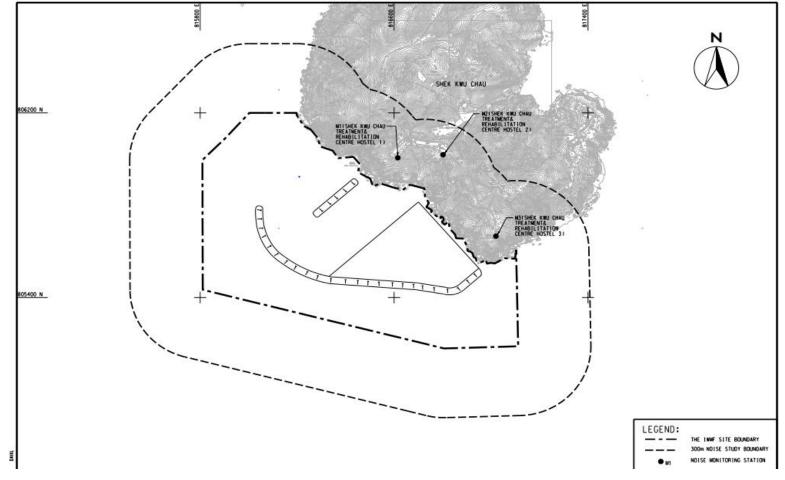


Figure 3.1 Noise monitoring locations at SKC

- 3.3.2 M1, M2 and M3 are Shek Kwu Chau Treatment and Rehabilitation Centre Hostel 1, 2 and 3 respectively of The Society for the Aid and Rehabilitation of Drug Abusers (SARDA) located at southern part of Shek Kwu Chau.
- 3.3.3 Measurements at M1 & M3 were conducted at a point 1m from the exterior of the sensitive receivers building façade and at a position 1.2m above the ground. Measurement setup at M3 has been varying with minor adjustment to minimize the disturbance to the users of Treatment Centre. Measurement at M2 was conducted at a point 1m from building façade of the ceiling of 1st floor level for avoidance of mutual disturbance with users of Treatment Centre. The minor adjustment of monitoring locations, which were in favour to mutual convenience with the users of Treatment Centre, were found with no effect on monitoring result based on on-site observation and experience from the Baseline monitoring of the Project. The noise monitoring stations are summarized in **Table 3.2** below.

Station	NSR ID in EIA Report	Noise Monitoring Location	Type of sensitive receiver(s)	Measurement Type
M1	N_S1	Shek Kwu Chau Treatment & Rehabilitation Centre Hostel 1	Residential	Façade
M2	N_S2	Shek Kwu Chau Treatment & Rehabilitation Centre Hostel 2	Residential	Façade
M3	N_S3	Shek Kwu Chau Treatment & Rehabilitation Centre Hostel 3	Residential	Façade

Table 3.2 Noise Monitoring Location

- 3.4 Impact Monitoring Methodology
- 3.4.1 At each designated monitoring location, measurements of six 5-minute A-weighted equivalent sound pressure level [" $L_{eq 5min}$ "] was carried out between 0700 and 1900 hours for daytime measurements on a normal weekdays (excluding Sunday or general holiday). The measured six impact noise levels at each monitoring location shall then be averaged in logarithmic scale and expressed in terms of the 30-minute A-weighted equivalent continuous sound pressure level ($L_{eq 30min}$) for the time period between 0700 and 1900 hours on normal weekdays.
- 3.4.2 At each designated monitoring location, measurements of three 5-minute A-weighted equivalent sound pressure level ["L_{eq 5min}"] was carried out between 1900 and 0700 hours for evening time and night time measurements.
- 3.4.3 The monitoring procedures are as follows:
 - The microphone head of the sound level meter was normally positioned 1 m exterior of the noise sensitive façade and lowered sufficiently so that the building's external wall acts as a reflecting surface.
 - If there is a problem with the access to the normal monitoring position, an alternative may be chosen and appropriate correction would be applied according to acoustic principle when necessary. For reference, +3 dB(A) correction would be made for free-field measurements.
 - The battery condition was checked to ensure good functioning of the meter.
 - Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
 - Frequency weight: A
 - Time weighting: Fast
 - Measurement time: 5 minutes

- Prior to and after noise measurement, the meter was calibrated using the calibrator for 94.0 dB at 1000Hz. If the difference in the calibration level before and after measurement is more than 1.0 dB, the measurement was considered invalid and repeat of noise measurement was required after re-calibration or repair of the equipment.
- Noise monitoring was carried out for 30 minutes by sound level meter. At the end of the monitoring period, noise levels in terms of L_{eq}, L₁₀ and L₉₀ were recorded. In addition, site conditions and noise sources were recorded when the equipment was checked and inspected.
- All the monitoring data within the sound level meter system was downloaded through the computer software.
- 3.5 Monitoring Equipment
- 3.5.1 Integrated sound level meter was used for the noise monitoring. The meter shall comply with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications.
- 3.5.2 Equipment used in the impact noise monitoring programme is summarized in Table3.3 below. Calibration certificates for the noise monitoring equipment are attached in Appendix E.

Equipment	Brand and Model
Sound Level Meter	SVANTEK 971
	RION NL-52
Sound Calibrator	RION NC-75

Table 3.3 Impact Noise Monitoring Equipment

3.6 Maintenance and Calibration

- 3.6.1 The maintenance and calibration procedures were as follows:
 - The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.
 - The sound level meter and calibrator were checked and calibrated at yearly intervals
 - Immediately prior to and following each noise measurement, the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration levels from before and after the noise measurement agree to within 1.0dB.
- 3.7 Action and Limit Levels
- 3.7.1 The Action/Limit Levels in line with the criteria of Practice Note for Professional Persons (ProPECC PN 2/93) "Noise from Construction Activities Non-statutory Controls" and Technical Memorandum on Environmental Impact Assessment Process issued by HKSAR Environmental Protection Department ["EPD"] under the Environmental Impact Assessment Ordinance, Cap 499, S.16 is presented in Table 3.4.

Time Period	Action	Limit (dB(A))			
0700-1900 hrs on normal	When one documented	75 dB(A)			
weekdays	complaint is received	73 dD(A)			

Table 3.4 Action and Limit Levels for Noise per Updated EM&A Manual

Notes: If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.

- 3.7.2 If exceedances were found during noise monitoring, actions in accordance with the Event and Action Plan shall be carried out according to **Appendix F**.
- 3.8 Monitoring Results and Observations
- 3.8.1 Impact monitoring for noise impact for daytime was carried out on 02, 08, 17, 18 and 24 January 2024. Impact monitoring for noise impact for evening time and night time was carried out on 02&03, 08&09, 17&18, 18&19, 24&25 January 2024. The impact noise levels at Noise Monitoring Stations at SKC (i.e. M1/N_S1 to M3/N_S3) are summarized in **Table 3.6**, **Table 3.7** and **Table 3.8** respectively. Details of noise monitoring results are presented in **Appendix G**.
- 3.8.2 Major construction activity, major noise source and extreme weather which might affect the results were recorded during the impact monitoring.
- 3.8.3 According to our field observations, the major noise source identified at the noise monitoring station in the reporting month are summarised in **Table 3.5**. Sound from the intermittent piling work was the noticeable noise source for monitoring stations M1, M2 and M3. Air conditioning units were also observed nearby monitoring stations M3.

Monitoring Station	Major Noise Source
M1	NA
M2	NA
M3	Operation of nearby Air Quality Monitoring Station

Table 3.5 Summary of Field Observation

3.8.4 No data from impact monitoring during daytime has exceeded the stipulated limit level at 75 dB(A).

Location	Measured Noise Level in dB(A)								
	Range of Leq 30min	Range of L _{10 30min}	Range of L _{90 30min}						
M1	57.8 - 60.3	59.6 - 61.5	54.3 - 55.7						
M2	53.9 – 57.1	55.4 - 59.8	50.3 - 53.3						
M3	54.8 - 59.4	57.5 - 62.0	50.7 - 52.8						

Table 3.6 Summary of Impact Noise Monitoring Results during Day Time (0700 – 1900 hours)

- 3.8.5 Applicable mitigation measures for construction works are fully implemented as shown in **Appendix B**, where double-glazed windows and air conditioning system were also installed and confirmed operable for the NSRs (N_S1, N_S2 & N_S3).
- 3.8.6 During the noise monitoring event, frontline staff of ET had inquired the treatment centre users on any noise disturbance from the construction activities at evening and night time, where no complaint and adverse opinions was received.
- 3.8.7 Where site inspection and auditing on Contractor's record have shown that the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority for construction works during restricted hours were followed, no inappropriate practice was spotted during evening time and night time construction works. Thus, the stipulated requirement on noise impact control during night time and evening time was achieved.

Location	Measured Noise Level in dB(A)								
	Range of Leq 5min	Range of L _{10 5min}	Range of L90 5min						
M1	47.1 – 55.4	48.4 - 56.8	39.4 - 54.3						
M2	47.6 - 56.6	48.8 - 58.5	45.6 - 54.6						
M3	42.2 - 49.1	43.0 - 50.3	40.8 - 46.7						

Table 3.7 Summary of Additional Impact Noise Monitoring Results during Evening Time (1900 – 2300 hours)

Table 3.8 Summary of Additional Impact Noise Monitoring Results during Night Time	
(2300 – 0700 hours)	

Location	Measured Noise Level in dB(A)								
	Range of Leq 5min	Range of L _{10 5min}	Range of L _{90 5min}						
M1	38.1 - 50.4	39.1 - 59.5	36.3 - 49.9						
M2	43.0 - 46.7	43.4 - 47.5	42.6 - 44.1						
M3	38.7 – 48.1	40.6 - 50.9	34.2 - 45.3						

4. WASTE

- 4.1 The waste generated from this Project includes inert construction and demolition (C&D) materials, and non-inert C&D materials. Non-inert C&D materials are made up of general refuse, vegetative wastes and recyclable wastes such as plastics and paper/cardboard packaging waste. Steel materials generated from the project are also grouped into non-inert C&D materials as the materials were not disposed of with other inert C&D materials.
- 4.2 As advised by the Contractor, no C&D materials were generated on site in the reporting month. No metal was generated and collected by registered recycling collector. No paper was collected by the registered recycling collector. No plastic waste was collected by registered recycling collector. No chemical waste was collected by the licensed chemical waste collector. 435.5m³ of other types of wastes (e.g. general refuse) was disposed of at designated landfill. No fill rock, fill sand or public fill was imported during the reporting period.
- 4.3 Chemical waste generated from land-based construction activities was stored in the chemical waste cabinet for temporary storage.
- 4.4 With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting month are summarised in **Table 4.1**. Details of cumulative waste management data are presented as a waste flow table in **Appendix H**.
- 4.5 The Contractor is advised to sort and store any solid and liquid waste on-site properly prior to disposal.

	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly							
	Total	Hard Rock and Large		Reused in	Disposed	Imported Fill			Dapar /	Plastics			Others,	
Reporting Month	Quantity Generated	Broken Concrete (see Note 1)	the Contract	other Projects	Disposed as Public Fill	Sand	Sand Public Ro	Rock	Metals	als cardboard packaging	(see Note 2)	Chemical Waste		e.g. general refuse (see Note 3)
	(in ,000m ³)	(in ,000m ³)	(in ,000m ³)	(in ,000m ³)	(in ,000m ³)		(in ,000m ³)		(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	(in ,000m ³)
Jan 2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4355

Notes: (1) Broken concrete for recycling into aggregates.

(2) Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials.

(3) Use the conversion factor: 1 full load of dumping truck being equivalent to $6.5m^3$ by volume.

(4) Use the conversion factor: rock density = 2 T/m^3 .

5. CORAL

- 5.1 Coral Monitoring Requirements
- 5.1.1 To monitor the health condition of corals during different phases, corals located within areas likely to be affected by the Project, corals located at control sites (areas unlikely to be affected by the Project), the trans-located coral colonies as well as the tagged natural coral colonies at the recipient site were chosen, in order to identify any adverse indirect impact from the marine works. The size, percentage cover and health condition of corals (i.e. any sign of abnormal appearance, such as layer of mucus, bleaching, partial mortality etc.) at representative transects should be recorded during each monitoring.
- 5.2 Coral Monitoring Parameters, Time, Frequency
- 5.2.1 Rapid Ecological Assessment (REA) survey was conducted on 26 June 2018 at the suggested control site and indirect impact site within two weeks before commencement of the construction work which was 29 June 2018. 10 selected hard coral colonies with the similar species were tagged at both control and indirect impact sites. Following coral translocation in the recipient site R3, 16 coral colonies attached to rocks less than 50 cm in diameter were translocated and tagged, as well as 10 selected natural coral colonies, at the recipient site. One additional REA survey was conducted in December 2018 to further assess the seabed condition at Indirect Impact Site after Typhoon Mangkhut.
- 5.2.2 Tagged coral colonies at the suggested control site and indirect impact site are being monitored weekly for the first month and followed by monthly monitoring for two months. Quarterly monitoring will be carried out after the first three-month of monthly monitoring until the completion of marine works and bi-annual monitoring will be carried out after the completion of marine works. The selected Control Site is located at Yuen Kong Chau of Soko Islands about 7 km away from the project area. Tagged coral colonies at the proposed recipient site are being monitored quarterly for one year. The selected recipient site R3 is located at the opposite side of the Project area at about 2 km away. The detailed survey of the Control Site and Impact Site were conducted before the commencement of the Construction Phase.
- 5.2.3 Monitoring recorded the following parameters (using the same methodology adopted during the pre-translocation survey); the size, presence, health conditions (percentage of mortality/bleaching) and percentage of sediment of each tagged coral colony. The general environmental conditions including weather, sea, and tidal conditions of impact site, control site and recipient site were monitored.
- 5.2.4 **Table 5.1** summarizes the monitoring locations, time and frequency of the tagged coral colonies monitoring. The monitoring schedule is provided in **Appendix C**.

Monitoring Location Monitoring Month/Year		Frequency	No. of Monitoring Survey	
1 st Month		Weekly Survey	4	
	2 nd to 3 rd Months	Monthly Survey	2	
	4 th Month (postponed	Re-tagging of Coral Colonies in Indire		
	to 5 th month due to	Impact Site after Ty	phoon Mangkhut	
	diver accident in Shek			
	Kwu Chau in October			
	2018)			
	4 th Month (postponed		al Colonies in Control	
	to 5 th month due to	Site after Typhoon N	Mangkhut	
	diver accident in Shek			
	Kwu Chau in October			
	2018 and further postpone to 6^{th} month			
	due to adverse			
	weather)			
	5 th Month (postponed	Post Re-tagging	1	
	to 6^{th} month due to	Monthly Survey	1	
	diver accident in Shek	Wonding Survey		
	Kwu Chau and further			
	postponed to 7 th			
10 selected hard coral colonies at control site /	month due to delay of			
indirect impact site	re-tagging activities at			
manoet impact site	both Indirect Impact			
	Site and Control Site)			
	7 th to 68 th Months	Quarterly Survey	20	
	(postponed to 8 th to			
	57 th month due to			
	diver accident in Shek			
	Kwu Chau in October 2018)			
	69 th to 76 th Months	Bi-annually	2	
	(The marine	Survey	2	
	construction work is	Burvey		
	anticipated to be			
	completed by			
	February 2024, the			
	frequency of			
	monitoring will be			
	changed to bi-annual			
	with reference to the			
	Updated EM&A			
	Mannual (Rev.E))			
16 translocated hard				
coral colonies and 10 selected natural hard	1 st Year	Quarterly Survey	4	
coral colonies at	1 1001			
recipient site R3				

 Table 5.1 Tagged Coral Monitoring Locations, Time and Frequency

5.3 Coral Monitoring Locations

5.3.1 Location of the ten tagged coral colonies at each of the proposed indirect impact site (re-tagging after typhoon Mangkhut), control site (baseline) and recipient site R3 (translocation) are shown in **Figure 5.1**, **Figure 5.2** and **Figure 5.3** respectively:

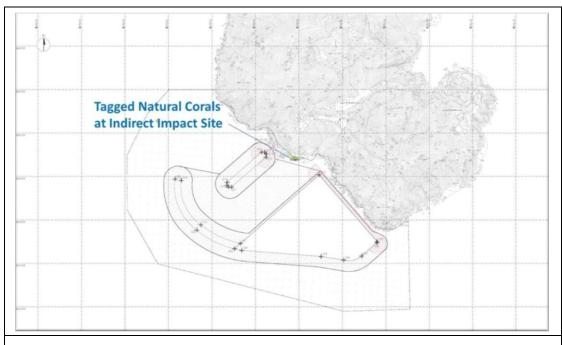


Figure 5.1 Tagged Natural Corals at Indirect Impact Site Near SKC for re-tagging after typhoon Mangkhut



Figure 5.2 Tagged Natural Corals at Control Site Near Yuen Kong Chau for retagging after typhoon Mangkhut



Figure 5.3 Tagged Translocation Corals at Recipient Site R3 near SKC

5.3.2 The GPS coordinates of the tagged coral colonies, retagged coral colonies and recipient site were shown in **Table 5.2**, **Table 5.3** and **Table 5.4** respectively.

Coral #	GPS Co	ordinates
1	N22°09'45.96"	E113°54'57.81"
2R	N22°11'29.12"	E113°59'09.01"
3	N22°09'45.81"	E113°54'57.78"
4	N22°09'45.70"	E113°54'57.95"
5R	N22°11'29.10"	E113°59'09.18"
6	N22°09'45.75"	E113°54'58.02"
7R	N22°11'29.17"	E113°59'08.86"
7	N22°09'45.65"	E113°54'57.94"
8	N22°09'45.53"	E113°54'57.90"
9	N22°09'46.23"	E113°54'54.70"
10R	N22°11'29.18"	E113°59'08.91"

Table 5.2 Tagged Natural Corals during Baseline and Re-tagged Natural Corals afterTyphoon Manghkut at Control Site near Yuen Long Chau

Notes:

i. The re-tagged corals were marked as ##**R**.

Table 5.3 Re-tagged Natural Corals after Typhoon Manghkut at Indirect Impact Site near SKC

Coral # note i	GPS Coordinates		
11R	N22°11'29.14"	E113°59'08.92"	
12R	N22°11'29.12"	E113°59'09.01"	
13R	N22°11'29.11"	E113°59'09.07"	
14R	N22°11'29.13"	E113°59'09.12"	
15R	N22°11'29.10"	E113°59'09.18"	
16R	N22°11'29.07"	E113°59'09.23"	
17R	N22°11'29.17"	E113°59'08.86"	
18R	N22°11'29.14"	E113°59'08.94"	
19R	N22°11'29.20"	E113°59'08.81"	
20R	N22°11'29.18"	E113°59'08.91"	

Notes:

i. The re-tagged corals were marked as ##**R**.

Table 5.4 GPS Coordinates of Recipient Site R3

Site	GPS Coordinates		
R3	N22°11'43.69"	E113°28.99"	

5.4 Impact Monitoring Methodology

- 5.4.1 Health status of coral was assessed by the following criteria:
 - Hard coral: Percentage of surface area exhibiting partial mortality and blanched/bleached area of each coral colony and degree of sedimentation.
- 5.5 Action and Limit Levels
- 5.5.1 Monitoring result was reviewed and compared against the below Action Level and Limit Level (AL/LL) as set with the below **Table 5.5** and **Table 5.6**.

Parameter Action Level Limit	Level
If during Impact MonitoringIf during Impacta 15% increase in the25% increasepercentageofpartialpercentage of pmortalityoftaggedindirectimpactsitecoralcoloniescoralcoloniesthat is notcoloniesrecorded on the taggedonat the control site, then thecontrol site, thenAction Level is exceeded.Level is exceeded.	se in the partial mortality occurs at more f the tagged ct site coral s not recorded corals at the hen the Limit

Table 5.5 Action and Limit Levels for Construction Phase Coral Monitoring

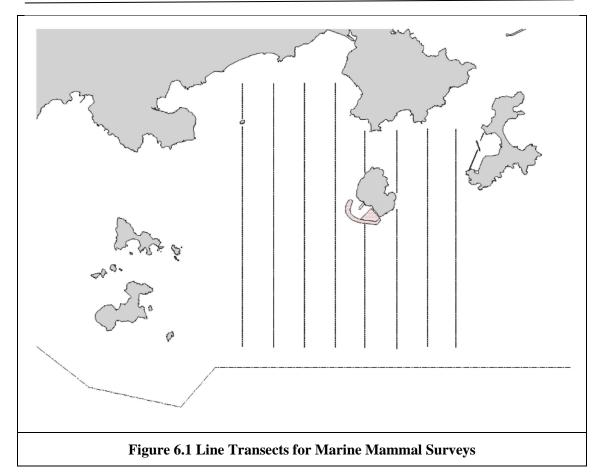
Table 5.6 Action and Limit Levels for Post-Translocation Coral Monitoring

Parameter	Action Level	Limit Level
Mortality	Monitoring a 15% increase in the percentage of partial mortality on the corals occurs at more than 20% of the translocated coral colonies	mortality on the corals occurs at more than 20% of the translocated coral colonies that is not recorded on the original corals in the recipient site,

- 5.5.2 If exceedance was found during coral monitoring. The actions in accordance with the Event and Action Plan should be carried out according to **Appendix I.**
- 5.6 Monitoring Results and Observations
- 5.6.1 No coral monitoring survey had been done during the reporting period and the 21st quarterly coral monitoring during construction phase at both Indirect Impact Site and Control Site would be scheduled in March 2024.

6. MARINE MAMMAL

- 6.1 Monitoring Requirements
- 6.1.1 The marine mammal monitoring programme would focus on Finless Porpoise, as the study area near Shek Kwu Chau has been identified as a hotspot for this species, while the Chinese White Dolphins rarely occurred there in the past.
- 6.1.2 The monitoring will verify the predicted impacts on marine mammals and examine whether the mitigation measures recommended in the EIA report have been effectively implemented to protect marine mammals from negative impacts from construction activities.
- 6.1.3 The Vessel-based Line-transect Survey, the Passive Acoustic Monitoring and the Land-based Theodolite Tracking will be conducted to provide systematic, quantitative measurements of occurrence, encounter rate, habitat use, movement and behavioural patterns of marine mammals within or near the Project Area during construction and operational phases.
- 6.1.4 The mammal monitoring works during construction consist of the following three survey methods:
 - Vessel-based Line-transect Survey to monitor the occurrence of Finless Porpoises (and Chinese White Dolphins) in the study area during construction works, by comparing with the findings of the pre-construction marine mammal monitoring;
 - Passive Acoustic Monitoring to study the usage of the Project Area and two control sites in South Lantau Waters by Finless Porpoise during construction works, in reference with the baseline findings of the pre-construction marine mammal monitoring; and
 - Land-based Theodolite Tracking to study the movement and behavioral pattern of Finless Porpoise within and around the Project Area during construction works.
- 6.1.5 The marine mammal observation works of Marine Mammal Exclusion Zone (MMEZ) and Marine Mammal Watching as two of the specific mitigation measures recommended in the approved EIA report shall be fully and properly implemented for the Project to minimize disturbance on Finless Porpoise during construction and operational phases.
- 6.2 Survey Methods
- 6.2.1 Vessel-based Line-transect Survey
- 6.2.1.1 For the vessel-based marine mammal surveys, the monitoring team adopted the standard line-transect method (Buckland et al. 2001) as same as that adopted during the EIA study and pre-construction phase monitoring to allow fair comparison of marine mammal monitoring results.
- 6.2.1.2 Eight transect lines are set at Southeast Lantau survey area, including Shek Kwu Chau, waters between Shek Kwu Chau and the Soko Islands, inshore waters of Lantau Island (e.g. Pui O Wan) as well as southwest corner of Cheung Chau as shown in **Figure 6.1** below:



6.2.1.3 The surveys should cover all 4 seasons in order to take natural fluctuation and seasonal variations into account for data analysis of distribution, encounter rate, density and habitat use of both porpoises and dolphins (if any). In comparison to the baseline monitoring results, results from the analysed construction phase monitoring data would allow the detection of any changes of their usage of habitat, in response to the scheduled construction works. The monitoring surveys shall be conducted throughout the construction phase involving marine construction work with the frequency shown in **Table 6.1** below:

Season	Months	Frequency
Peak Season	December, January, February,	Twice per month
	March, April & May	
Non-peak Season	June, July, August, September, October & November	Once per month

6.2.1.4 For each vessel survey, a 15-m inboard vessel with an open upper deck (about 4.5 m above water surface) would be used to make observations from the flying bridge area. Two experienced marine mammal observers (a data recorder and a primary observer) would make up the on-effort survey team, and the survey vessel would transit different transect lines at a constant speed of 13-15 km per hour. The data recorder shall search with unaided eyes and fill out the datasheets, while the primary observer shall search for dolphins and porpoises continuously through 7 x 50 marine binoculars. Both observers shall search the sea ahead of the vessel, between 270° and 90° (in relation to the bow, which is defined as 0°). Two additional experienced observers shall be available on the boat to work in shift (i.e. rotate every 30 minutes) in order to minimize fatigue of the survey team members. All observers shall be

experienced in small cetacean survey techniques and identifying local cetacean species with extensive training by marine mammal specialist of the ET.

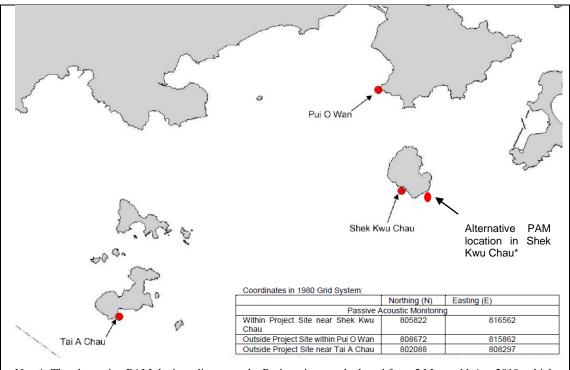
- 6.2.1.5 During on-effort survey periods, the survey team shall record effort data including time, position (latitude and longitude), weather conditions (Beaufort sea state and visibility), and distance travelled in each series (a continuous period of search effort) with the assistance of a handheld GPS (Garmin eTrex Legend). Data including time, position and vessel speed would also be automatically and continuously logged by handheld GPS throughout the entire survey for subsequent review.
- 6.2.1.6 When porpoises or dolphins are sighted, the survey team shall end the survey effort, and immediately record the initial sighting distance and angle of the porpoise or dolphin group from the survey vessel, as well as the sighting time and position. Then the research vessel shall be diverted from its course to approach the animals for species identification, group size estimation, assessment of group composition, behavioural observations, and collection of identification photos (feasible only for Chinese White Dolphin). The perpendicular distance (PSD) of the porpoise or dolphin group to the transect line would then be calculated from the initial sighting distance and angle, which shall be used in the line-transect analysis for density and abundance estimation.
- 6.2.1.7 The line-transect survey data shall be integrated with a Geographic Information System (GIS) to visualize and interpret different spatial and temporal patterns of porpoise and dolphin distribution using their sighting positions collected from vessel surveys. Location data of porpoise and dolphin groups would be plotted on map layers of Hong Kong using a desktop GIS (e.g. ArcView© 3.1) to examine their distribution patterns in details. The encounter rate could be used as an indicator to determine areas or time periods of importance to porpoises within the study area. For encounter rate analysis of finless porpoises, only survey data collected under Beaufort 2 or below condition would be used for encounter rate analysis.
- 6.2.1.8 To take into account of the variations of survey effort across different sections within survey area, the quantitative grid analysis of habitat use would be conducted to examine finless porpoise usage among 1-km² grids within the Southeast Lantau survey area. For the grid analysis, SPSE (sighting density) and DPSE (porpoise density) values would be deduced for evaluation on level of porpoise usage. First, positions of on-effort porpoise sightings from the study period are plotted onto 68 grids (1 km x 1 km each) within the survey area. Sighting density grids and porpoise density grids shall then be normalized with the amount of survey effort conducted within each grid. The total amount of survey effort spent on each grid shall be calculated by examining the survey coverage on each line-transect survey to determine how many times the grid had been surveyed during study period. With the amount of survey effort calculated for each grid, the sighting density and porpoise density of each grid shall be further normalized (i.e. divided by the unit of survey effort).
- 6.2.1.9 The newly-derived unit for sighting density was termed SPSE, representing the number of on-effort sightings per 100 units of survey effort. In addition, the derived unit for actual porpoise density was termed DPSE, representing the number of dolphins/porpoise per 100 units of survey effort. Among the 1-km² grids that were partially covered by land, the percentage of sea area was calculated using GIS tools, and their SPSE and DPSE values were adjusted accordingly. The following formulae shall be used to estimate SPSE and DPSE in each 1-km² grid within the study area:

$$SPSE = ((S / E) x 100) / SA\%$$
$$DPSE = ((D / E) x 100) / SA\%$$

where S = total number of on-effort sightings D = total number of dolphins/porpoises from on-effort sightings E = total number of units of survey effortSA% = percentage of sea area

6.2.2 Passive Acoustic Monitoring (PAM)

The PAM aims to study the usage of an area by Finless Porpoise by using an array of automated static porpoise detectors (e.g. C-POD) which would be deployed at different locations to detect the unique ultra-high frequency sounds produced by Finless Porpoise. During the construction period, the PAM survey will be conducted including placement of two passive porpoise detectors outside the Project Area as control site (i.e. within Pui O Wan and to the south of Tai A Chau) and one porpoise detector within the Project Area (i.e. near Shek Kwu Chau) as shown in **Figure 6.2** below.



Note*: The alternative PAM device adjacent to the Project site was deployed from 5 Mar to 11 Apr 2019, which contained a full 37 days acoustic monitoring data set. After the confirmation of loss of the original PAM within the Project site, this data set was proposed to replace that of the original one, as consulted with AFCD accordingly.

Figure 6.2 Locations of Passive Acoustic Monitoring

6.2.3 These three detectors will be deployed on-site to carry out 24-hours monitoring for a period listed as **Table 6.2** below during the construction phase.

Table	6.2 PAM	Deployment	Period
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Season	Months	Deployment Period
Peak Season	December, January, February,	At least 30 days during the peak
	March, April or May	months of porpoise occurrence
		in South Lantau waters

- 6.2.3.1 The automated static porpoise detectors shall detect the presence and number of finless porpoise and Chinese White Dolphins respectively over the deployment period, with the false signal such as boat sonar and sediment transport noise distinguished and filtered out. The detectors shall be deployed and retrieved by professional dive team on the seabed of the three selected location shown in Figure 6.2. During each deployment, the C-POD unit serial numbers as well as the time and date of deployments shall be recorded. Information including the GPS positions and water depth at each of the deployment locations shall also be obtained.
- 6.2.3.2 The diel patterns (i.e. 24-hour activity pattern) of finless porpoise occurrence among the three sites at Shek Kwu Chau, Tai A Chau and Pui O Wan shall be analyzed. Peaks and troughs of finless porpoise occurrence per hour of day would be identified and compared with the results obtained from pre-construction monitoring.
- 6.2.4 Land-based Theodolite Tracking
- 6.2.4.1 The Land-based Theodolite Tracking study would use the same station as in the AFCD monitoring study (same as the baseline monitoring location), which is situated at the southwest side of Shek Kwu Chau (GPS position: 22°11.47' N and 113°59.33' E) as shown in below **Figure 6.3**. The station was selected based on its height above sea level (at least 20 metres), close proximity to shore, and relatively unobstructed views of the entire Project Area to the southwest of Shek Kwu Chau. The height of the Shek Kwu Chau Station established by the HKCRP team is 74.6 m high at mean low water, and only a few hundred metres to the IWMF reclamation site, which is ideal for the purpose for the present behavioural and movement monitoring of finless porpoises as well during construction phase considering there as an un-obstructed vantage point at a height above the Project Site.

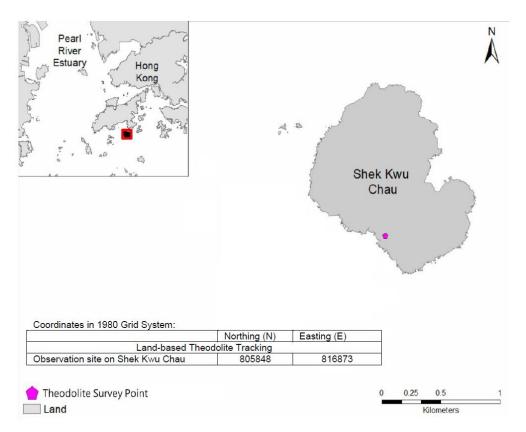


Figure 6.3 Locations of Land-based Theodolite Tracking

During the construction phase, Land-based Theodolite Tracking will be carried out for approximately six hours of tracking for each day of field work for a period listed as **Table 6.3** below, preferably at the initial stage of the construction period (i.e. December 2018 to May 2019).

Table 6.	3 Lan	d-based	Theod	lolite Tı	racking	Survey	Period
						~~~~~	

Season	Months	Survey Period
Peak Season	December, January, February,	30 days during the peak months
	March, April or May	of porpoise occurrence in South
		Lantau waters

- 6.2.4.2 The monitoring period for land-based theodolite tracking will be proposed to be overlapped with the PAM. The monitoring team consists of one experienced theodolite operator and at least two field observers for assistance. To conduct theodolite tracking, the observers will search systematically for Finless Porpoise using the unaided eye and 7 x 50 handheld binoculars on each survey day throughout the study area. When an individual or group of porpoises is located, a theodolite tracking session will be initiated and focal follow methods will be used to track the porpoise(s). Behavioural state data (i.e. resting, milling, travelling, feeding and socializing) shall also be recorded every 5 minutes for the focal individual or group. Positions of porpoises and boats shall be measured using a digital theodolite connected to a laptop computer. This tracking survey was conducted during the peak season between December 2018 and May 2019 for 30 surveys spanning across 15-16 weeks during the peak season to provide good temporal coverage during the initial stage of the construction period.
- 6.3 Specific Mitigation Measures
- 6.3.1 Monitored exclusion zones
- 6.3.1.1 A MMEZ with 250 m distance from silt curtain shall be established during the above situation. If 3 or more construction vessels are required with MMO's duty and operating in close proximity, for the purpose of avoiding accidental entrance to the works area by Marine Mammal, a cluster MMEZ plan will be implemented to form a MMEZ with 250 m distance from the boundary of a work area as indicated in Figure 1 for reference. A team of MMO (i.e. at least two MMOs per day/night shift teams) would be arranged at the out-lying construction vessels to form the cluster MMEZ. The MMEZ serves as a monitoring approach to provide appropriate and immediate actions once finless porpoise or Chinese White Dolphin is sighted within the MMEZ. All MMEZ will be monitored by competent Marine Mammal Observers (MMOs) to be provided by the Environmental Team for the IWMF and trained by the Marine Mammal Monitoring Specialist of the ET who is independent from KSZHJV. The marine mammal observer(s) shall be independent of the construction contractor and shall form part of the Environmental Team and have the power to call-off construction activities.
- 6.3.1.2 According to the Condition 2.25 of the FEP, MMEZ should be implemented during the installation/re-installation/relocation process of floating type silt curtains in order to avoid the accidental entrance and entrapment of marine mammals within the silt curtains. Also, marine construction works expected to produce underwater acoustic disturbance as per Condition 2.27 of the FEP, especially within December and May, would require the implementation of MMEZ, which currently all those specific construction activities have been replaced by less acoustically disturbing construction methods such as Deep Cement Mixing (DCM) and Precast Concrete

Blocks Installation as discussed in Section 5.3 of the Detailed Monitoring Programme on Finless Porpoise, however, MMEZ would also be implemented for precautionary purpose for DCM works.

6.3.1.3 A MMEZ with 250 m distance from the boundary of a work area shall be established during the above situation. A typical MMEZ is indicated in **Figure 6.4** for reference. The MMEZ serves as a monitoring approach to provide appropriate and immediate actions once finless porpoise or Chinese White Dolphin is sighted within the MMEZ. All MMEZ will be monitored by competent Marine Mammal Observers (MMOs) to be provided by the Environmental Team (ET) for the IWMF and trained by the Marine Mammal Monitoring Specialist of the ET who is independent from KSZHJV.

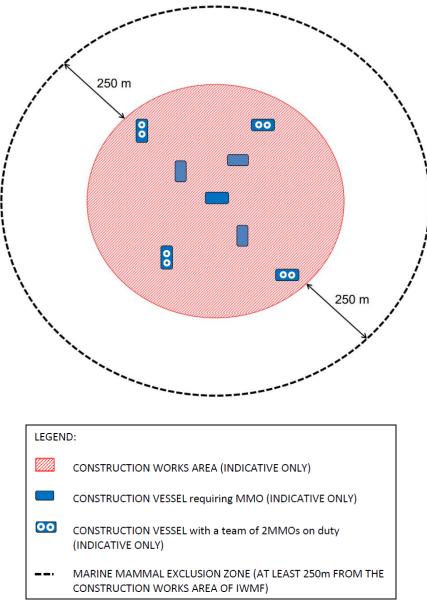


Figure 6.4 Illustration of Typical MMEZ

- 6.3.1.4 Prior to the commencement of construction activity, our MMOs shall ensure the boundary of a marine work area and setting up of the MMEZ for the work area and get access to the monitoring location on a barge or a lookout point where there is no obstructed views for monitoring the MMEZ during the construction activity. The MMEZ shall be scanned thoroughly by a MMO for any presence of marine mammal e.g. finless porpoise for an initial period of 30 minutes. Construction activity shall only be commenced after the MMO has confirmed that the MMEZ is clear of the marine mammal for the initial period of 30 minutes. The MMO shall then inform the construction superintendent through mobile phone or handheld transceivers to certify the commencement of construction activity. The MMEZ monitoring shall be carried on throughout the period for all active construction activities requiring implementation of MMEZ.
- 6.3.1.5 When any mammal marine, e.g. Finless Porpoise, is detected by the MMO within the MMEZ during construction, the MMO shall inform the construction superintendent immediately through mobile phone or handheld transceivers to cease construction activity within the MMEZ. Construction activity shall not be recommenced until the MMO confirms that the MMEZ is continuously clear of marine mammal for a period of 30 minutes. The MMO shall then inform the construction superintendent through mobile phone or handheld transceivers to certify the re-commencement of construction activity.
- 6.3.1.6 As there could be a number of Contractors working at the same time within a work area for the IWMF project, a full contact list of MMEZ monitoring team members of the ET and the relevant responsible construction superintendents of the Contractor at the site shall be prepared, updated regularly and circulated to all parties involved in the MMEZ monitoring. With a full contact list, our MMOs shall be able to find out the contacts of corresponding persons in case of marine mammal sighting within and near the MMEZ or emergent occurrence of any unpredictable impact on marine mammal.
- 6.3.1.7 If a marine mammal is still observed in close vicinity but outside the MMEZ, the MMO shall inform the construction superintendent about the presence of marine mammal. The MMO shall remain in position and closely observe the movement of the marine mammal as well as searching for the appearance of any other marine mammal within the MMEZ. No matter the marine mammal is observed within or in close vicinity but outside the MMEZ, the construction superintendent or relevant persons shall inform all vessel captains involved in construction activities around the MMEZ to pay special attention of the presence of the marine mammal in order to reduce chance of collision with them. In case of injury or live-stranded marine mammal being found within the MMEZ, the marine mammal observer shall immediately inform the construction superintendent to suspend construction activities within the works area and contact AFCD through "1823" marine mammal stranding hotline.
- 6.3.2 Marine mammal watching plan
- 6.3.2.1 Upon the completion of silt curtain installation/re-installation/relocation, the marine works would be conducted within an enclosed environment within the silt curtain. Subsequently, Visual Inspection of the Waters Surrounded by Silt Curtains (Section 2.1, MMWP) and Regular Inspection of Deployed Silt Curtain (Section 2.2, MMWP) inspection under Marine Mammal Watching Plan would be implemented (where applicable, Marine Mammal Exclusion Zone shall be conducted at the meantime).

- 6.3.2.2 Before commencement of dredging/sand blanket laying work at each designated area, a trained MMO shall check whether position frame silt curtains are ready, well prepared and operated without any obvious damage. Also, the MMO shall confirm the presence of the relevant frontline staff of the main contractor or its sub-contractors and engineers on board to ensure the effective communication, coordination and implementation of the response plan in relation to any incidents involving marine mammals within the waters surrounded by the position frame type silt curtains and the work areas. Also, there are lookout points at an elevated level on each barge, clear and safe access at the edges of the derrick lighter/ flag-top barge for inspection during dredging/sand blanket laying works, provision of sufficient lighting is required if working at night.
- 6.3.2.3 During the operation, the inspection will be conducted daily. The MMO will walk along the edge of derrick lighter (DL) and flag-top barge (FB) along the position frame silt curtain or proper location without obstacles where appropriate to inspect the position frame silt curtains are maintained in the correct positions with no obvious defects / entanglement and there is no observable muddy water passing through the position frame silt curtain system. Any floating refuse trapped by the silt curtain shall be removed as part of the regular inspection. For night inspection, spotlight will be used to provide sufficient brightness to assist the inspection in dark condition.
- For the re-deployment of the localized silt curtains (frame-type, cage-type or 6.3.2.4 enclosed floating-type silt curtains), MMO will conduct visual inspection to confirm that there is no presence of marine mammal within the localized silt curtains (frametype, cage-type or enclosed floating-type silt curtains). Visual inspection will be conducted every hour by MMO for confirming that there is no marine mammal observed in the surrounding area of the deployed silt curtain during re-deployment of localized silt curtains (frame-type, cage-type or enclosed floating-type silt curtains). The duration will be subject to various conditions, e.g. weather or angle of observation. The works can only commence after confirming that the surrounding waters of the localized silt curtains do not contain any marine mammal. Thereafter, frontline staff, i.e. foremen, site agent, superintendents and engineers will assist our MMO in implementing the plan from the active work fronts within the waters surrounded by the silt curtains throughout the work period. The MMO will conduct regular check to observe the presence of any marine mammal around the localized silt curtain or being trapped by the localized silt curtain daily. The MMOs will also check if the localized silt curtains are in correct positions.
- 6.3.2.5 The MMO shall fill up our Marine Mammal Sighting Record Sheet. After inspection, those records should be kept properly and submitted to the project team. In case there is any marine mammal being found, the MMO should carry out the response actions and communicate with relevant parties to stop and then resume work after the discovered marine mammal leaves. After lifting up and mobilization of silt curtain, the MMO will repeat the procedures of regular and visual inspection until the end of the construction works.
- 6.3.2.6 Each lookout point will have an unobstructed view to waters around the DL and FB. The MMO will move around the DL and FB to establish a clear and unobstructed view as much as they can without compromising the safety concern. When appropriate, the lookout point can be replaced by a proper location if unobstructed view can be assured.

- 6.3.2.7 Installation of caisson No.19 was completed on 18 March 2021, which the reclamation area had been totally enclosed by permanent structure. Floating type silt curtain at marine access was removed on 18 March 2021. No enclosed area shall be formed by deployment of silt curtain for the remaining works programme.
- 6.4 Results and Observations
- 6.4.1 Vessel-based Line-transect Survey
- 6.4.1.1 As confirmed with Contractor and Project Supervising Officer, no marine construction work will be carried out from March to December 2023 tentatively. An updated EM&A arrangement to propose the temporary suspension of line transect monitoring from March to December 2023 was submitted to EPD on 21 March 2023 and EPD had no comment on the updated EM&A arrangement on 29 March 2023. The line transect monitoring was then temporarily suspended from 30 March 2023 onward.
- 6.4.2 PAM and Land-based Theodolite Tracking
- 6.4.2.1 30 days of PAM surveys were started on 1 May 2019 and completed in the end of May 2019. Multiple PAM systems were deployed at three sites. The PAM system located at the IWMF was lost, however, an alternative data set had been identified. The PAM systems at the two control sites Tai A Chau and Pui O were recovered on 3 August 2019. A summary of marine mammal detections showed that porpoise were recorded every day of deployment at each site, but at varying frequencies. The detailed theodolite result was presented in 17th Monthly EM&A report (November 2019) while detailed PAM result was presented in 18th Monthly EM&A report (December 2019).
- For the baseline study, the Detection Positive Minutes (DPM) for each site was 6.4.2.2 11,160 (Shek Kwu Chau), 16,089 (Tai A Chau) and 3645 (Pui O Wan), totalling 30,894 DPM across all three sites, compared to DPMs of 4740 (Shek Kwu Chau), 7725 (Tai A Chau) and 23,986 (Pui O Wan), totalling 36,451 DPM, for the impact phase study. As the impact phase study was longer than the baseline study, it is not appropriate to directly compare total counts of DPM. However, the DPM rate (the average number of detections per day) for each site can be more directly compared. During the baseline study, Shek Kwu Chau averaged 338.2 DPM per day compared with 124.8 DPM per day during the impact phase study. This showed a decrease in the daily average of porpoise detection at Shek Kwu Chau. During the baseline study, Tai A Chau averaged 487.6 DPM per day compared with 179.7 DPM per day, during the impact phase study. This showed a decrease in the daily average of porpoise detection at Tai A Chau. During the baseline study, Pui O Wan averaged 98.5 DPM per day compared with 557.8 DPM per day during the impact phase study. This showed a significant increase in the daily average of porpoise detections at Pui O Wan.
- 6.4.2.3 Overall, the PAM study showed that porpoise continue to consistently utilise the Shek Kwu Chau habitat immediately adjacent to the IWMF construction activities, although to a lesser degree than that prior to construction activities. In addition, the Pui O Wan site, which is 2.5 km away from the IWMF construction area, was also consistently utilised during the impact phase PAM study. A continued assessment of fine scale habitat use, particularly through PAM which yielded large quantities of data, would allow a more comprehensive assessment of the EIA predictions.

- 6.4.2.4 Theodolite surveys were completed in May 2019. In total, 34 days of theodolite tracking were completed between February and May 2019, comprising 167 hours and 49 minutes of observation. No Chinese white dolphin was observed and only one finless was recorded. The finless porpoise encounter rate was calculated as 0.006 finless porpoise per hour, in all weather conditions.
- 6.4.2.5 A total of 2620 vessels of ten different types were observed and tracked within or in the proximity of the IWMF construction site. These comprised fishing boats (236), speed boats (29), container boats (155), government boats (22), high speed ferries (53), others (13) and IWMF-Related construction platforms (974), tug boats (240), transportation boats (363), construction boats (531) and approximately 8 buoys were present marking the site boundary.
- 6.4.2.6 The baseline theodolite tracking was conducted immediately prior to and during the site preparation activities of the site. The baseline data records a decrease in porpoise sightings as site preparation activities commenced and notes that the decrease was most likely due to the onset of site preparation activities. The impact theodolite tracking conducted for this study records a marked increase in the number of Project related vessels and platforms and, in agreement with baseline conclusions, shows a concomitant decrease in finless porpoise sightings.
- 6.4.3 Specific Mitigation Measures
- 6.4.3.1 Trainings for the MMO were provided by the ET prior to the monitoring of the Marine Mammal Exclusion Zone (MMEZ) for installation/ re-installation/ relocation process of silt curtains, with a cumulative total of 98 individuals being trained and the training records kept by the ET.

# 7. WHITE-BELLIED SEA EAGLE

- 7.1 Monitoring Requirement
- 7.1.1 On Shek Kwu Chau Island, a nest of WBSE is located about 60 m above ground within a hillside shrubland habitat, 130 m in-land from shore, about 550 m away from the proposed reclaimed land, with no human access. 3 phases monitoring programme will be comprised of pre-construction phase, construction phase and operation phase.
- 7.1.2 The Pre-Construction WBSE monitoring was started on 30 January 2018 and the location of WBSE nest was confirmed on 21 February 2018 and it is located at the western part of SKC Island (**Figure 7.1**). Two adults and two chicks were also recorded on 5 March 2018 survey till the end of the Pre-construction monitoring on 15 May 2018. Construction Phase monitoring were carried out followed by the commencement of the Construction Phase on 28 June 2018.
- 7.2 WBSE Monitoring Parameters, Time, Frequency
- 7.2.1 The objective of the construction phase monitoring should be to verify the utilisation of the area by WBSE, their responses to construction disturbance, as well as the effectiveness of the proposed mitigation measures. Throughout the construction phase, field surveys should be conducted twice per month during their core breeding season (from December to May), and once per month outside their core breeding season (from June to November). The monitoring frequency should be increased to weekly during the incubation period of each year. In order to confirm their foraging ground near the construction site, it is necessary to conduct daily monitoring during the first week of nestling period in each year.
- 7.2.2 Since the location of the WBSE nest was located at the southwest of SKC within the hillside shrubland, it is impossible to observe the eggs during incubation period. Therefore, monitoring with increased frequency during incubation period will be continued until chick was seen in the nest. Daily monitoring of 7-day consecutive monitoring will be carried out once any chick is recorded during the monitoring day. The monitoring schedule during the reporting period is provided in **Appendix C**.
- 7.3 Monitoring Location
- 7.3.1 Since there are no suitable land footings along the coast of SKC, only boat surveys were conducted. On Shek Kwu Chau Island, a nest of WBSE is located about 60 m above ground within a hillside shrubland habitat, 130 m in-land from shore, about 550 m away from the proposed reclaimed land, with no human access.
- 7.4 Monitoring Methodology
- 7.4.1 Information to be collected included feeding, perching/roosting, preening, soaring, flying, nesting and territorial guarding and the time spent on each activity. The responses and reactions to any disturbance to the WBSEs were also recorded and examined in conjunction with the construction noise and/or other events in the vicinity. Other disturbances such as weather condition, or invasion by other fauna species were also recorded.
- 7.4.2 Binocular, scope, camera, lens and GPS device used are summarized as **Table 7.1** below:

Equipment	Quantity
Swarovski EL 8.5 x 42 Binocular	1
Swarovski EL Range 8 x 42 Binocular	1
Swarovski ATX 25-60 x 85 Spotting Scope	1
Canon 1Dx Mark II Camera	1
Canon EF300mm F2.8 Lens with Canon 2x Teleconverter	1
Canon PowerShot G7X Camera	1
Garmin GPSMAP 64S	1

### Table 7.1 List of Equipment Used during Construction Phase Monitoring

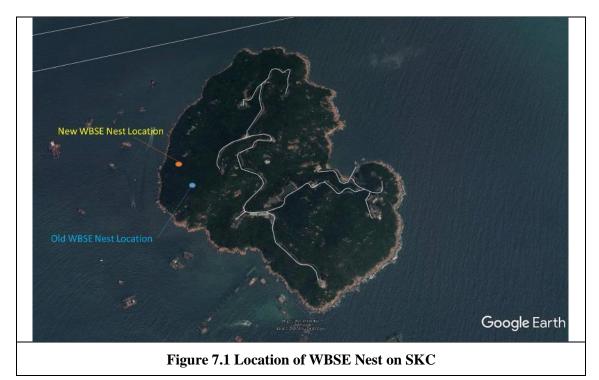
- 7.4.3 If event such as absence of White-bellied Sea Eagle during a whole day of monitoring was found during WBSE monitoring, the actions in accordance with the Event and Action Plan should be carried out according to **Appendix J.**
- 7.5 Results and Observations
- 7.5.1 The weekly monitoring for incubation period during the construction phase monitoring was conducted on 04, 11, 18 and 25 January 2024 to verify the utilization of the area by WBSE, their responses to construction disturbance, as well as the effectiveness of the proposed mitigation measures. Since there is no landing point long the western part of SKC, boat survey were used for the monitoring survey. The WBSE, monitoring survey was carried out in the morning. The weather condition of monitoring survey was shown in **Table 7.2**.

Table 7.2 Weather Conditions during the WBSE Monitoring

Date	Condition	Temperature (°C)
04 January 2024	<ul><li>North wind force 3 to 4</li><li>Sunny Day</li></ul>	16
11 January 2024	<ul><li>Northeast wind force 4 to 5</li><li>Sunny Day</li></ul>	18
18 January 2024	<ul><li>North wind force 4 to 5</li><li>Sunny Day</li></ul>	19
25 January 2024	<ul><li>Northeast wind force 5 to 6</li><li>Sunny Day</li></ul>	12

- 7.5.2 During the whole monitoring survey period, the two adult WBSEs were recorded staying in the nest and incubation was taken place in the nest during the monitoring survey on 4th, 11th, 18th, and 25th January 2024. No abnormal behaviors of the adults were recorded.
- 7.5.3 The juvenile recorded in 2022 and 2023 has not been observed since monitoring event in September 2022 and September 2023 respectively, it is suggested that the juvenile left the nest at SKC and nesting in other area outside our monitoring boundary.
- 7.5.4 All construction works during the monitoring period did not show any effect to the WBSE.

- 7.5.5 Any disturbances from anthropogenic activities on the island were not recorded during the monitoring survey. However, there were fishing boats moving close the shore were recorded. Since the nesting tree is about 160m away from the shore and it is not accessible, fishing boat activities didn't show any direct disturbance to the WBSE nest. No invasion of other faun species was recorded as well.
- 7.5.6 There was no sign of using the construction site as a foraging ground.
- 7.5.7 As the adult was undergoing incubation period during the breeding season, weekly construction phase monitoring will be continued in February 2024 during the breeding season (between December to May) in order to monitor the incubation period, utilization of the area by WBSE and their responses to construction disturbance.



7.5.8 Photo record of WBSE from the survey in this reporting month is shown below:



One Adult Female WBSE Staying in nest for incubation on 18 January 2024

# 8. SUMMARY OF MONITORING EXCEEDANCE, COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTIONS

8.1 The Environmental Complaint Handling Procedure is shown in **Figure 8.1**.

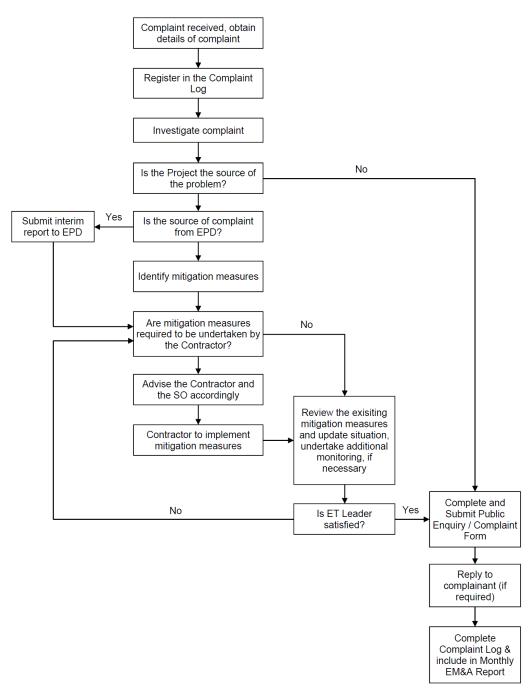


Figure 8.1 Environmental Complaint Handling Procedures

- 8.2 No exceedance of the Action and Limit Levels of the regular WBSE monitoring and noise monitoring was recorded during the reporting period as shown in **Appendix K**.
- 8.3 No environmental complaint was received in the reporting period.
- 8.4 No notification of summons and prosecution was received in the reporting period.
- 8.5 Statistics on complaints, notifications of summons and successful prosecutions are summarized in **Appendix L**.

# 9. EM&A SITE INSPECTION

9.1 Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, site inspections were carried out on 02, 09, 16, 23 and 30 January 2024 at the site portions listed in **Table 9.1** below.

Date	Inspected Site Portion	Time
02 January 2024	Portion 1, 1A & 1B (near SKC)	10:15 AM - 11:20 AM
09 January 2024	Portion 1, 1A & 1B (near SKC)	10:15 AM - 11:20 AM
16 January 2024	Portion 1, 1A & 1B (near SKC)	10:15 AM – 11:30 AM
23 January 2024	Portion 1, 1A & 1B (near SKC)	10:10 AM - 11:20 AM
30 January 2024	Portion 1, 1A & 1B (near SKC)	10:15 AM – 11:20 AM

### **Table 9.1 Site Inspection Record**

- 9.2 One joint site inspection with IEC was carried out on 16 January 2024.
- 9.3 Environmental deficiencies were observed during weekly site inspection. Key observations during the site inspections of the reporting period are summarized in **Table 9.2**.

Date	Environmental Observations	Follow-up Status
02 January 2024 (Site inspection)	Observation(s) and Recommendation(s)1. At concrete batching barge, sludge	1. At concrete batching barge, sludge
(2)	inside the u-channel should be removed.	inside the u-channel had been removed.
	Observation(s) and Recommendation(s)	
09 January 2024 (Site inspection)	<ol> <li>Near Bay 7 &amp; Bay 8, general waste should be stored separately from C&amp;D waste. Recyclable material should be stored separately from recycling.</li> </ol>	<ol> <li>Near Bay 7 &amp; Bay 8, general waste had been stored separately from C&amp;D waste. Recyclable material had been stored separately from recycling.</li> </ol>
	Observation(s) and Recommendation(s)	
16 January 2024 (Site inspection)	1. At haul road near MT plant, water should be sprayed regularly.	1. At haul road near MT plant, water had been sprayed regularly
23 January 2024	Observation(s) and Recommendation(s)	
(Site inspection)	1. Nil	1. Nil
	Observation(s) and Recommendation(s)	
30 January 2024 (Site inspection)	1. At Bay 6, oil drum should be placed on drip tray.	1. At Bay 6, oil drum had been placed on drip tray.
	2. No NRMM label was displayed on CC55.	2. NRMM label had been displayed on CC55.

#### Table 9.2 Site Observations

- 9.4 The Contractor had rectified all the observations identified during environmental site inspections in the reporting period.
- 9.5 According to the EIA Study Report, Environmental Permit, contract documents and Updated EM&A Manual, the mitigation measures detailed in the documents are implemented as much as practical during the reporting period. An updated Implementation Status of Environmental Mitigation Measures (EMIS) is provided in **Appendix B**.

### **10. FUTURE KEY ISSUES**

- 10.1 Works to be undertaken in the next reporting month are:
  - Reclamation Area:
    - Pile cap construction
    - Structural steel work
    - Superstructure construction
  - Seawall Portion:
    - Caisson extension works, from +3mPD to +6mPD, at Seawall A and B
    - Construction of wave wall along the vertical seawall
- 10.2 Potential environmental impacts arising from the above construction activities are mainly associated with construction noise, waste management and ecology.
- 10.3 The key environmental mitigation measures for the Project in the coming reporting period expected to be associated with the construction activities include:
  - Reduction of noise from equipment and machinery on-site;
  - Sorting, recycling, storage and disposal of general refuse and construction waste;
  - Management of chemicals and avoidance of oil spillage on-site, especially under heavy rains and adverse weather;
  - Dust control of exposed soil surface and stockpile of dusty material at reclaimed area;
  - Dust suppression measures for exposed earth surface and stockpile of dusty material; and
  - Site runoff control measure during construction works.
- 10.4 The tentative schedule of regular construction noise and ecology monitoring in the next reporting period is presented in **Appendix M**. The regular construction noise and ecology monitoring will be conducted at the same monitoring locations in the next reporting period.

## **11. CONCLUSION AND RECOMMENDATIONS**

- 11.1 This 67th monthly Environmental Monitoring and Audit (EM&A) Report presents the EM&A works undertaken during the period from 1 January to 31 January 2024, in accordance with the Updated EM&A Manual and the requirement under EP-429/2012/A and FEP-01/429/2012/A.
- 11.2 Construction noise, construction waste and WBSE monitoring were carried out in the reporting period. No project-related exceedance of the Action and Limit Level was recorded from 1 January to 31 January 2024.
- 11.3 Weekly environmental site inspections were conducted during the reporting period. Environmental deficiencies were observed during site inspection and were rectified.
- 11.4 According to the environmental site inspections performed in the reporting month, the Contractor was reminded to pay attention on the regular cleaning and maintenance for drainage system, proper storage of general and C&D waste to maintain the site tidiness, proper storage of chemicals, proper dust suppression to haul road and displaying the NRMMs label to machineries
- 11.5 No environmental complaint was received in the reporting period.
- 11.6 No notification of summon or prosecution was received since commencement of the Contract.
- 11.7 The ET will keep track of the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Appendix A Master Programme

D	Adivity Name	Original	Remaining		Current Start	Current Finis	h Late Start	Late Finish	Total M73 Remarks	2023	grated Waste Manage
		Duration 2373	Duratior 513		05-Sep-18 A	26 May 25	02 101 22	01 Oct 25	Float 128	Dec 73	Jan 74
ogramme for D ey Dates	esign and Construction Works WP6I-M73 - 3-Month	2373				28-Jan-24	30-Oct-23		2		
lanned Completic	n Dates	29			31-Dec-23		30-Oct-23		2		
01-1030(5a)	Grid Connection Agreement (GCA)	0	C	0%	5	31-Dec-23*		30-Oct-23	-61		Grid Connection Agreement (GCA
01-1070	Completion of Civil Provision for Transmission	0	0		01-Jul-23 A	28-Jan-24	22 5	30-Jan-24	2		
ontract Prelimina		213			01-Jul-23 A 01-Jul-23 A		23-Sep-23 23-Sep-23		-70 -70		
2-1030	Invironmental Monitoring Stations Establishment of Air Quality Monitoring Station at Portion 3 (12m Prior to T&C)	60				28-Feb-24			-70		
02-1050	Establishment of Air Quality Monitoring Station at Portion 5 (12m Prior to T&C)	90			01-Jul-23 A		23-Sep-23		-99		
cense/Permit Ap		574			24-Dec-22 A		· · · · ·		156		
icense/Permit for		363			24-Dec-22 A	29-Jan-24		29-Jan-25	367		
03-1370(5a) 03-1370_1(M34)	EPD Discharge License for System Commissioning Landscape and Visual Plan	0	24		29-Jan-24 24-Dec-22 A	23-Jan-24	06-Jan-25 06-Jan-25	29-Jan-25	343 372		
GLicence		210			30-Jan-24	26-Aug-24			-2		
Day Tank & Fuel C	Dil Storage (Cat 5)	210	210	)	30-Jan-24	26-Aug-24	28-Jan-24	24-Aug-24	-2		
03-1400 03-1410	General Building Plans and FSI Provision Design Submission to FSD (Cat 5)	30 180	30		30-Jan-24	28-Feb-24			-2		
Chemical Stores (	DGD and VD Review and Approval of Submission all Cat)	201	180 201		29-Feb-24 30-Jan-24	26-Aug-24 17-Aug-24	27-Feb-24 17-Jan-24	24-Aug-24 04-Aug-24	-13		
03-1480	Plans and FSI Provision Design Submission to FSD	21	21	1 0%	5 30-Jan-24	19-Feb-24	17-Jan-24	06-Feb-24	-13		
03-1490	DGD and VD Review and Approval of Submission	180	180		20-Feb-24	17-Aug-24	07-Feb-24	•	-13		
	Ilations (FSI) Certificate	74	74 C		29-Jan-24 29-Jan-24	12-Apr-24 29-Jan-24		18-Sep-24 16-Jan-24	-13		
O3-1555-1(5a)	Approval of General Building Plans and FSI Provision Design Submission	0	0			29-Jan-24 29-Jan-24	TU-Jdl1-24	16-Jan-24	-13		
	allations Certificate Inspection for IWMF Sub-Station	42			02-Mar-24	12-Apr-24	08-Aug-24		159		
03-3880	Completion of FSI Installations for IWMF Sub-Station	0	C			29-Mar-24		04-Sep-24	159		
03-3890 03-3900	Application for FSI inspection FSD Process Application	14			02-Mar-24	15-Mar-24 29-Mar-24	08-Aug-24 22-Aug-24	•	159 159		
03-3910	FSD Initial Inspection	14			5 30-Mar-24	12-Apr-24		18-Sep-24	159		
ir Pollution Contr	ol (Specified Processes) License	300	209	9	24-Apr-23 A	26-Jul-24	05-Jan-24	31-Jul-24	5		
03-1750(3)	SP License Application Submissions and review by EPD	300	209		24-Apr-23 A		05-Jan-24		5		
ollers and Pressu	Completion of on-site boiler installation	90			11-Feb-24 11-Feb-24		18-Sep-23	16-Dec-23	-146 -146		
eneral Submissio		1735			27-Nov-18 A				-130		
ontractor's Plans	Submission and Approval	1735	10	)	27-Nov-18 A	09-Jan-24	19-Aug-23	01-Sep-23	-130		
04-1400(1)	Operation Plan (OP)	240			5 27-Nov-18 A			01-Sep-23	-130		Operation Plan (
04-1450(1) 04-1500(1)	Asset Management Plan (AMP) Handback Plan (HP)	120			5 15-Apr-23 A 5 15-Mar-23 A		•	28-Aug-23	-134		Asset Manageme Handback Plan (
esign Submissio		2160	300	)	05-Sep-18 A	25-Oct-24	07-Jul-23	01-Oct-25	341		
eneral Building P		943	60	)	03-Mar-21 A	28-Feb-24	22-Nov-23	15-Aug-24	169		
04-1600(M42)	Process Building & Wastewater Treatment Plant	135			o 03-Jun-21 A			16-Jan-24	-13		
04-1610(M42) 04-1620(M42)	Turbine Hall Building Compressor & CCCW Building	135			03-Mar-21 A		18-Dec-23	16-Jan-24 16-Jan-24	-13		
)4-1630(M42)	Chimney	135			03-Mar-21 A			16-Jan-24	-13		
04-1640(M42)	Mechanical Treatment Plant & Water Treatment Plant	135			03-Jun-21 A		18-Dec-23		-13		
04-1650(M42) 04-1660(M42)	Reception Pavilion Administration Building and Viewing Gallery	135	30		03-Jun-21 A		18-Dec-23 18-Dec-23	16-Jan-24 16-Jan-24	-13		
04-1670(M42)	Elevated Drive Way and Associated Structures	135	30		03-Mar-21 A		18-Dec-23		-13		
04-1680(M42)	IWMF Substation	135	30		03-Mar-21 A			16-Jan-24	-13		
04-1700 04-1710	Vessel Offloading Point Vehicle Fuel Filling Station	60 60	60		31-Dec-23	28-Feb-24 28-Feb-24		28-Mar-24 20-Mar-24	29 21		
04-1720	Fuel Filling Kiosk	60	60		5 31-Dec-23	28-Feb-24		20-Mar-24	21		
)4-1730 )4-1740	Weighbridge Seawater Intake Structure	135	22		22-Apr-22 A 23-Feb-23 A		22-Nov-23 17-Jul-24	13-Dec-23 15-Aug-24	-39 199		
IP Design Packag		1914	269	_	23-Apr-19 A			0	116		
×	/ lant Buildings (2.3)	60	14	4	01-Jun-22 A	13-Jan-24	22-Feb-24	06-Mar-24	53		
Operation Manag	ement System (2.3.03.04)	60	14	4	01-Jun-22 A	13-Jan-24	22-Feb-24	06-Mar-24	53		
05-2250	Design of the Air Quality Monitoring Stations (2.9.03)	60 432	14		01-Jun-22 A		22-Feb-24		53 203		Design of
AIP Mechanical Tr 05-1670	reatment Plant Building (2.4) Electrical and instrumentation works design (2.4.03)	190	38		18-Jan-22 A			-	-63		
	s design (excluding fire services installation design) (2.4.06)	135			18-Jan-22 A				211		
05-1700	LV and Emergency Power Distribution Design	135	30		5 18-Jan-22 A			27-Aug-24	211		
AIP Administratio		59	59		31-Dec-23	27-Feb-24	03-Dec-23		-28		
05-2050 AIP Roads and Ut	Electrical and instrumentation works design (2.7.03)	59 60	59 60		31-Dec-23 31-Dec-23	27-Feb-24 28-Feb-24	03-Dec-23 23-Sep-23		-28 -99		
	tem design on the Artificial Island (2.10.04)	60	60		31-Dec-23		23-Sep-23		-99		
05-2360	Water Tanks (2.10.04.05)	60	60		5 31-Dec-23	28-Feb-24			-99		
	Finishes and Landscaping Works (2.11)	90	30		05-Oct-21 A		28-Apr-24		119		
Facade Structura		90	30					27-May-24			
05-8040-1(6D)	Reception Pavilion (2.3.14.07.01)	90			05-Oct-21 A			27-May-24 21-Nov-24			
m resulty and C		1340	173								

PAGE 1 OF 16

	. EP/SP/66/12 ilities, Phase 1	<b>環境保護署</b> Invironmental Protection Department
	2024 Feb	Mar
	75	76
� Cor	npletion of Civil Provision for Transmission	Establishment of Air Quality Monitoring Station at Por
Establish	ment of Air Quality Monitoring Station at Portion 5	
	D Discharge License for System Commissioning nd Visual Plan	
	ſ	General Building Plans and FSI Provision Design Sub
	Plans and FSI F	Yovision Design Submission to FSD
♦ Ap	proval of General Building Plans and FSI Provision	Design Submission
		Application for FSI inspec
 、		
	ocess Building & Wastewater Treatment Plant	
Ci Ci M	rbine Hall Building ompressor & CCCW Building himney echanical Treatment Plant & Water Treatment Plan eception Pavilion finifistration Building and Viewing Gallery	
IV		Vessel Offloading Point Vehicle Fuel Filling Station Fuel Filling Klosk
Weighbridge	awater Intake Structure	
e Air Quality Monit	oring Stations (2.9.03) Electrical and instrumentation works de	sign (2.4.03)
(V	and Emergency Power Distribution Design	ectrical and instrumentation works design (2.7.03)
		Water Tanks (2.10.04.05)
R	eception Pavilion (2.3.14.07.01)	
I Milestone I Milestone		

	- 振動 素 美 公 考 maximus advert vortunal A divity Name	Original	Remaining	Activity % Curre	ant Ctart	Current Finish	Lato Stort	Late Finish	Total M73 Remarks		grated Waste Man
		Duration	Duration	Complete		Cullent Fillisi	Late Start	Late Fillish	Float	Dec73	Jan 74
5-2650-1(5)	Factory Acceptance Testing plan (2.12.01.02-07) (8 Packages)	1651	85			24-Mar-24			-151		
-2670	System commissioning plan (2.12.03)	90	90	0% 31-D		29-Mar-24			110		
2680	Plant commissioning plan (2.12.04)	105 105	105 105	0% 30-N	Var-24 Jan-24		09-Aug-24 13-Jul-24		132 165		
Miscellaneous	Existing onshore crane replacement works at Portion 2			0% 30-J		-					
-2710 P Auxiliary Plant		105 90	105 90			13-May-24 29-Mar-24			165 -61		
5-2760	Agintenance workshops (2.16.01)	90	90	0% 31-D		29-Mar-24			-77		
5-2770	Vehicle Fuel Filling Station (2.16.02)	90	90	0% 31-D		29-Mar-24			-99		
-2780	Stores systems (2.16.03)	90	90	0% 31-D		29-Mar-24			-61		
O&M Packages		818	269	06-J	Jun-22 A	24-Sep-24	13-Nov-23	18-Jan-25	116		
5-8010(6E)	Warehouse (O&M Scope)	185	45	40% 04-J	Jul-22 A	13-Feb-24	11-Apr-24	25-May-24	102		
-8020(6E)	Workshop (O&M Scope)	150	150	0% 30-J	Jan-24*	27-Jun-24	11-May-24	07-Oct-24	102		
-8030(6E)	Ash & Residues Container (O&M Scope)	160	14				24-May-24		145		Ash
-8040(6E)	Bicar Debagging Station (0&M Scope)	105	24			23-Jan-24	10-May-24		131		
-8050(6E) -8050-1(M55)	Other Mobile Plants (O&M Scope) Design of (pilot) Electric Vehicle	210 150	210 150	0% 28-F		24-Sep-24 26-Jul-24	23-Jun-24 13-Nov-23		-107		
A Design Packag		2160	300			25-Oct-24			341		
	ayout Design (2.1)	1161	67			06-Mar-24			260		
		256	59				24-Sep-24		268		
-5120	Decess design for incineration (2.1.13) Leachate Collection and Treatment (2.1.13.05) (2 Packages)	256	59			27-Feb-24 27-Feb-24			268		
	Decess design for mechanical treatment (2.1.13.05) (2 Packages)	1161	59 67			27-Feb-24 06-Mar-24	24-Sep-24 06-Sep-23		260		
-3500	Mechanical Treatment Plant (2.1.14)	181	67			06-Mar-24	16-Sep-24		260		
3510	Weter Treatment Plant and Boiler Water Treatment (Demin Unit) Plant	101	29			28-Jan-24	06-Sep-23		-116		
distic arrangeme	ent design for MSW and Ash and Residues (2.1.17)	105	31			30-Jan-24	20-Jan-24	19-Feb-24	20		
-4410	Mechanical Shredder	105	31	80% 25-S	Sep-21 A	30-Jan-24	20-Jan-24	19-Feb-24	20		
A Ground Treatn	nent, Reclamation, Seawall, Breakwater, Berth (2.2)	1896	90	20-J	Jan-19 A	29-Mar-24	17-Nov-23	28-Jul-25	486		
3430-2(M37)	Geotechnical Interpretative Report (2.2.02.02)	105	10	90.48% 31-D	Dec-20 A	09-Jan-24	13-May-24	22-May-24	134		Geotech
3450	Seawall design (2.2.20)	60	20	66.67% 20-J	Jan-19 A	19-Jan-24	17-Nov-23	06-Dec-23	-44		
3470	Berth design (2.2.22)	60	15				25-Jun-24		177		
470-1(M37)	Mooring Dolphins	60	60	0% 31-D			30-May-25		516		
3480 3490	Onshore crane Facility (2.2.23) Onshore vessel power supply system (2.2.24)	60 90	60 90	0% 31-D 0% 31-D		28-Feb-24 29-Mar-24			252		1
	lant Buildings (2.3)	1950	135			13-May-24	18-Aug-23		233		
		59	9			09-Jan-24	28-Mar-24		89		
ructural design ( 5-3280-1(M55)	z.s. 14) Sky Deck	59	9			09-Jan-24	28-Mar-24		89		Sky Deck
	rumentation works design (2.3.15)	1950	90			29-Mar-24			126		
	ess Island) (2.3.15.02)	378	57	22-S	Sep-20 A	25-Feb-24	02-Feb-24	28-Apr-24	63		
05-3370	Electric Heat Tracing (Process Island) (2.3.15.02.10)	120	57	60% 17-F	eb-22 A	25-Feb-24	02-Feb-24	29-Mar-24	33		
5-3390-10(M55)	Electrical Works - MCC Panels (2.3.15.02.01)	105	16	80% 22-S	Sep-20 A	15-Jan-24	11-Mar-24	26-Mar-24	71		
5-3390-11(M55)	Electrical Works - Process Island Uninterruptible Power Supply (UPS) (2.3.15.02.03)	105	16			15-Jan-24			46		
5-3390-13(M55)	Electrical Works E&I Installation at Yard (2.3.15.02.08)	105	16			15-Jan-24			104		
5-3390-6(M55)	Electrical Works Instrumentation (2.3.15.02.06) Electrical works CEMS and Process Analyzers (2.3.15.02.07)	105	16 36			15-Jan-24			104 84		
5-7400-1(M55)	er Island) (2.3.15.03)	105 348	30			04-Feb-24 30-Jan-24			61		
5-3390-13(M55)10	Electrical Works Design (2.3.15.03.01 to 04)	105	31			30-Jan-24			-87		
5-3390-4(M46)	Generator Related Equipment (2.3.15.03.08)	105	31	80% 29-J	Jun-21 A	30-Jan-24	01-Mar-24	31-Mar-24	61		· · · · · · · · · · · · · · · · · · ·
5-3390-7(M55)	instrumentation works design(2.3.15.03.05 &2.3.15.03.06)	105	31	80% 10-F	eb-21 A	30-Jan-24	20-Dec-23	19-Jan-24	-11		
•	nt System (2.3.15.04)	1950	90			29-Mar-24		0	126		
5-3390-6(M46)	OMS/SCADA/DCS - System Networks Details (2.3.15.04.02)	105	43			11-Feb-24			24		
5-5400-1(M22) 5-7400(6E)	Automatic Traffic Control System (ATCS) Automatic License Plate and Container Recognition System (ALPCRS)	90 90	90 31	0% 31-D		29-Mar-24 30-Jan-24	-	-	31		
3.15.04.03	Automatic License Plate and Comaniel Recognition System (ALPCRS)	90 167	31			30-Jan-24	07-Mar-24		67		
.3.15.04.03.02		105	29			28-Jan-24	09-Mar-24		69		
05-3390-13(M58)	OMS/SCADA/DCS - Panel Design for Power Island and Plant Common (2.3.15.04.03.02)	105	29		-	28-Jan-24			69		
2.3.15.04.03.03 05-3390-14(M55)	OMS/SCADA/DCS - Server Panel Design (2.3.15.04.03.03)	105 105	31 31			30-Jan-24 30-Jan-24			67 67		
3.15.04.06		105	31			30-Jan-24			67		
5-3390-9(6D)	Process Related 3rd Party System (2.3.15.04.06.01.01)	105	31	80% 09-D	Dec-21 A	30-Jan-24	07-Mar-24	06-Apr-24	67		
5-3420(M58)	3rd Party System for Power Island & Communication Data Tables for Process Vol 1 and Power Island & Plant C. Vol 1 & 2	105	31			30-Jan-24			67		
15.05 2200 15(M55)	Palance of Plant IV Switchager Dosign (2.2.15.05.01)	105 105	31			30-Jan-24			158 89		
-3390-15(M55) -3390-16(M55)	Balance of Plant LV Switchgear Design (2.3.15.05.01) Package 3 (Balance of Plant) - Weighbridge Electrical & Instrumentation Package & ALPCRS (2.3.15.05.07)	105	31		,	30-Jan-24 30-Jan-24			155		
-3390-10(M55)	Waste Crane Functional Description (2.3.15.05.08)	105	31			30-Jan-24			118		
-3390-3(M55)	Electrical and Instrumentation Works Design - Compressed Air Plants (2.3.15.05.03)	105	31			30-Jan-24	· ·	,	-39		
5-3390-5(M55)	Electrical and Instrumentation Works - Ash Crane (2.3.15.05.05)	105	31			30-Jan-24			158		
.15.08		105	31	23-N	May-22 A	30-Jan-24	07-Mar-24	06-Apr-24	67		
5-3390-21(M55)	Operation Management System (2.3.15.08)	105	31			30-Jan-24			67		
chanical works	design (2.3.16)	1825	135			13-May-24			35		
int and Equipment		1825	135			13-May-24			35		
	Electrical and Instrumentation Works - Waste Crane and Grapple System (2.3.15.05.04)	105	31			30-Jan-24		-	118		
5-3390-4(M55)				000/ OF M	100 Y 22 A	30- Jan-24	120- Jan-24	19-Feb-24	20		
5-3600	Mechanical Shredder	105	31		,						
	Mechanical Shredder Incineration System (9 Packages) Heat Recovery Boller (8 Packages)	105 105 105	31 119 104	80% 28-F	eb-19 A	27-Apr-24 12-Apr-24	01-Jan-24	28-Apr-24	1 66		

Remaining Work 🛇 🛇 Milestone	3-Month Rolling Programme (December 2023)	Actual Work	Critical Remaining Work	<b>◇</b>
	PAGE 2 OF 16	Remaining Work	♦ ♦ Milestone	٠

ntract No. EP/SP/66/12
nont Facilitios Phase 1



Critical Milestone

	Activity Name	Origina				Current Finis	Late Start	Late Finish	Total M73 Remarks	2023	ated Waste Mana
		Duratio			·				Float	Dec	Jan 74
05-3650	Leachate collection and treatment	180			80% 04-Jul-23 A		-	16-Dec-23	-70		
05-3790 05-3800	Flue Gas Treatment System (12 Packages) Boiler ash and APC residue handling and solidification	10!			25% 31-Oct-19 A 70% 09-Jun-20 A		04-Apr-24	18-May-24 28-Apr-24	-15		
	ks (Incl. Ductworks) and Valves	470				13 May 24			-29		
05-3840	Process island (furnace-boiler-FGC)	10!	5 45	5	5% 29-Feb-20 A	13-Feb-24	16-Nov-23	30-Dec-23	-45		
05-4350	Pipe Rack C1, C2, C3, D1 & D2 (Prefab.3)	10			80% 28-Feb-21 A		02-Dec-23		-29		
	Inclure support (For equipment, piping & duct, cable tray etc)	10!			29-May-21 A 80% 29-May-21 A	A 14-Feb-24	02-Dec-23		-29 -29		
05-3540	Pipe Rack C1, C2, C3, D1 & D2 (Prefab.3) ces installation design (2.3.17)	60		_	,	A 14-Feb-24 A 13-Feb-24		16-Jan-24 11-Aug-24	-29		
DA FILE SELVIC	Fire Systems (same package with 05-3680)	60			60% 22-Sep-22 A			11-Aug-24			
05-3680	FS schematics (same package with 05-3660)	60			60% 22-Sep-22 A		28-Jul-24	-	180		
uilding service	es design (excluding fire services installation design) (2.3.18)	15 ⁻	I 90	_		29-Mar-24			278		
05-3690	Electrical Services and Lighting (7 Packages)	60	) 30	)	0% 22-Apr-22 A	29-Jan-24	20-Jul-24	18-Aug-24	202		
05-3700	MVAC	90		)	0% 26-Oct-21 A	27-Feb-24		17-Sep-24	203		
05-3710	Odour Control	90			0% 31-Dec-23	29-Mar-24		17-Sep-24	172		
05-3720 DE 2720	Plumbing (7 Packages) Drainage (7 Packages)	90			0% 02-Dec-22 A 0% 10-Mar-22 A		04-Dec-24 04-Dec-24		339 339		
05-3730 05-3740	ELV (7 Packages)	60			0% 10-10a1-22 A 0% 25-Oct-21 A			18-Aug-24	202		
05-3750	Lifts and Escalators	90			0% 13-Jul-23 A			28-Dec-23	-31		
05-3770	Building Management System (BMS)	60			0% 14-Jun-22 A			30-Oct-23	-91		
05-3780	Vehicle & Container Wash System	60			0% 28-Apr-23 A		13-Jan-24		13		<u>-</u>
05-3780-2(M20)	Water Cannon System	90			0% 31-Dec-23	29-Mar-24	,	5	135		
	Drawings and Fire Safety Strategy (2.3.25)	360				28-Feb-24			15		Site Master Layou
05-3520 05-6110(M46)	Site Master Layout Plan and Plant Layout (2.1.18) Gate House and miscellaneous	60		_	80% 06-Jun-23 A 0% 31-Dec-23		08-Mar-24		-135		Sile Master Layou
. ,	I Treatment Plant Building (2.4)	44(		-		28-Feb-24	18-Aug-23 01-Oct-23	16-Oct-23	46		
5-5190	Electrical and instrumentation works design	180			0% 15-Jan-24*	12-Jul-24	29-Oct-23	-	-78		-
5-5200	Mechanical works design (2.4.16)	13			0% 31-Dec-23	13-May-24	13-Dec-23		-18		
5-5210	Fire services installation design (2.6.17)	60			80% 21-Apr-23 A		16-Mar-24		76		
uilding service	es design (excluding fire services installation design) (2.4.18)	33	5 90	)	20-Sep-22 A	29-Mar-24	01-Oct-23	27-Aug-24	151		
5-3850	LV and Emergency Power Distribution Design	90	) 28	3	60% 20-Sep-22 A	27-Jan-24	31-Jul-24	27-Aug-24	213		
05-3860	MVAC	90			60% 14-Feb-23 A		22-Feb-24		53		
05-3870	Odour Control	90		-	60% 16-Apr-23 A		19-Nov-23		-42		Odou
05-3880 05-3890	Plumbing Drainage	60			60% 20-Sep-22 A 60% 24-Apr-23 A		15-Mar-24 22-Apr-24	13-Apr-24 20-May-24	75		
15-3890 15-3900	Lighting and small power	90			60% 20-Sep-22 A			20-1viay-24 27-Aug-24	212		
5-3910	Lifts and Escalators	90			0% 31-Dec-23	29-Mar-24		•	-91		
05-3910-1	Building Management System (BMS)	60	) 29	)	60% 20-Sep-22 A	28-Jan-24	02-Oct-23	30-Oct-23	-90		
DA Wastewate	r Treatment Plant (2.5)	66	9 93	3	10-Mar-22 A	01-Apr-24	21-Apr-24	25-Nov-24	238		
5-3950	Electrical and instrumentation works design (2.5.15)	60			25% 19-Sep-22 A						
5-3960	Mechanical works design (2.5.16) (5 Packages)	233			80% 31-May-22 A		0		227		
5-3970	Fire services installation design (2.6.17) (2 Packages)	60			60% 21-Apr-23 A	28-Feb-24 29-Mar-24			135 241		
0	es design (excluding fire services installation design) (2.5.18) LV and Emergency Power Distribution Design for IWMF Waste Water Treatment Plant										
5-3980 5-3990	LV and Emergency Power Distribution Design for TwinF waste water Treatment Plant MVAC	90			60% 20-Sep-22 A 60% 09-Mar-23 A				153		
5-4000	Odour Control	90			0% 31-Dec-23				112		Ç
5-4010	Plumbing	90	) 30	)	60% 20-Sep-22 A	29-Jan-24	28-Aug-24	26-Sep-24	241		!
5-4020	Drainage	10!		)	80% 10-Mar-22 A	29-Jan-24	28-Aug-24	26-Sep-24	241		
5-4030	ELV	9(		_	80% 22-Sep-22 A						
	tment Plant Building (2.6)	51:				29-Jan-24					Masharita luurulu daala
-4090 -4100	Mechanical works design (2.6.16)	90			60% 02-May-22 A		-		75		Mechanical works desig
	Fire services installation design (2.6.17) es design (excluding fire services installation design) (2.6.18)	45!			60% 22-Sep-22 Α 29- Jun-22 Δ	29-Jan-24 29-Jan-24	15-Mar-24	· ·			
5-4110	Electrical Services and Lighting				60% 20-Sep-22 A			Ű			
5-4120	MVAC	90			60% 29-Jun-22 A		21-Feb-24		52		
5-4140	Plumbing	60	) 30		60% 20-Sep-22 A		15-Mar-24		75		
5-4150	Drainage	60	) 30	)	60% 20-Sep-22 A	29-Jan-24	21-Apr-24	20-May-24	112		
5-4160	ELV	90			60% 20-Sep-22 A			-			
	nstrumentation works design (2.6.15)	23				02-Jan-24			86		Woter Trees I Di
-4080	Water Treatment Plant (WTP) - Variable Speed Drive (2.6.15.01)	23			80% 11-Apr-22 A						Water Treatment Plant
	tion Building (2.7)					27-Apr-24		-			
4200 4210	Electrical and instrumentation works design (2.7.13) Fire services installation design (2.7.14)	60			0% 28-Feb-24 60% 09-Mar-23 A	· · ·	31-Jan-24 15-Mar-24		-28		
	es design (excluding fire services installation design) (2.7.15)	33!		_		29-Jan-24 29-Mar-24					
-4220	Electrical Services and Lighting	90			60% 02-Dec-22 A		30-May-24	-			
-4230	MVAC	90			60% 14-Feb-23 A		21-Apr-24				
-4250	Plumbing	90			60% 05-May-23 A			-			
-4260	Drainage	90			60% 05-May-23 A		29-Jul-24	-			
5-4270	ELV	90			60% 20-Sep-22 A		30-May-24		151		
5-4280	Lifts and Escalators	90			0% 31-Dec-23						
5-4280-1	Building Management System (BMS)	90			60% 29-Oct-22 A				-91		
A IWMF Subs						29-Jan-24		25-100 14	331		

3-Month Rolling Programme (December 2023)	
PAGE 3 OF 16	

Critical Remaining Work 🔶 ♦ Milestone

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Contract N	No. EP/SP/66/12		環境保護署
Nanagement Fa	acilities, Phase 1		Invironmental Protection Department
Jan 74	Feb 75		Mar 76
			te collection and treatment
	Flue C	Gas Treatment Syste	(n (12 Packages)
	1	ss island (furnace-bo Rack C1, C2, C3, D	
	Pipe	Rack C1, C2, C3, D	1 & D2 (Prefab.3)
	Fire S	ystems (same packa	age with 05-3680)
	1	hematics (same pac	1
	Electrical Convision and Lighting (	7 Deekersee)	
	Electrical Services and Lighting (	-	VAC
	Plumbing (7 Packages) Drainage (7 Packages)		
	ELV (7 Packages)		
	Lifts and Escalators Building Management System (B	(MS)	
	Vehicle & Container Wash System		
			· · · · · · · · · · · · · · · · · · ·
ter Layout Plan and Plant Lay	out (2.1.18)		
			Gate House and miscellaneous
<u></u>		<u></u>	
	Fire services installation design (2	.6.17)	
	V and Emorgonau Dower Distributi	on Docian	
	V and Emergency Power Distribution		
Odour Control			
	Plumbing Drainage		
	Lighting and small power		
	Building Management System (BN	IS)	
		)	
			Machanical works dosis
			Mechanical works desig Fire services installation design (2.6.17) (2 Packages)
Ľ	V and Emergency Power Distribution MVAC	on Design for IWMF	Waste Water Treatment Plant
	MWAC .		
	Plumbing		
	Drainage ELV		
ks design (2.6.16)	Fire services installation design (	2617)	
		.=	
	Electrical Services and Lighting		
	MVAC		
	Drainage		
	ELV		
t Plant (WTP) - Variable Spee	d Drive (2.6.15.01)		
	Fite services installation design (	(2.7.14)	
		.=	
	Electrical Services and Lighting		
	MVAC		
	Drainage		
	ELV		
	Building Management System (B	MS)	
tion design (2.8.17)			<u> </u>
<ul> <li>Actrual Milestor</li> </ul>	ne		

Critical Milestone

	Adivity Name	Original Remai Duration Dura	ration	Activity % Current Start Complete	Current Time		_ate Finish	Total M73 Remarks Float	2023 Dec	Jan
Building services o	lesign (excluding fire services installation design) (2.8.18)	151	30	25-Oct-21 A	29-Jan-24	02-Jun-24	25-Dec-24	331	73	74
05-4990	Electrical Services and Lighting	90	30	60% 22-Apr-22 A		26-Nov-24		331		
05-5000	MVAC	90	30	60% 19-Nov-21 A		02-Jun-24 (		154		
05-5010	Plumbing	90	30	60% 08-Dec-22 A	29-Jan-24	26-Nov-24		331		
05-5020	Drainage	90	30	60% 10-Nov-22 A		26-Nov-24		331		
05-5030 05-5030-1	ELV Building Management System (BMS)	90	30 30	60% 25-Oct-21 A 60% 25-Oct-21 A		26-Nov-24 2 07-Oct-24 0		331 282		
	umentation works design (2.8.15)	90	0			17-Aug-23		-135		
2.8.15.06		90	0		31-Dec-23		J	-135		
05-4320	Electrical and instrumentation works design (2.8.15.06.01 to 40)	90	0	80% 16-Oct-21 A		0	•	-135		Electrical and instrumentation works of
DDA Air Cool Conde	ensers Equipment (2.3.06)	90	90	31-Dec-23	29-Mar-24	01-Sep-23	18-Aug-24	142		
Building services of	lesign (excluding fire services installation design) (2.3.06)	90	90	31-Dec-23	29-Mar-24	01-Sep-23	18-Aug-24	142		
05-5510	Electrical Services and Lighting	90	90	0% 31-Dec-23	29-Mar-24	21-May-24	18-Aug-24	142		
05-5520	Plumbing	60	60	0% 31-Dec-23	28-Feb-24	21-May-24		142		
05-5530	ELV	90	90	0% 31-Dec-23		21-May-24	-	142		
05-5540	Building Management System (BMS)	60 90	60 90	0% 31-Dec-23 31-Dec-23		01-Sep-23 3 01-Sep-23 2		-121 52		
DDA Chimney 05-5540-2(6D)	Fire services installation design	29	29	0% 31-Dec-23	28-Jan-24	02-Sep-23	-	-120		
	lesign (excluding fire services installation design)	90	90	31-Dec-23		02-Scp-23 2		52		
05-6000-1(5a)	Electrical Services and Lighting	90	90	0% 31-Dec-23	29-Mar-24		27-Apr-24	29		
05-6010(5a)	MVAC	60	60	0% 31-Dec-23	28-Feb-24			22		L
05-6020-1(5a)	Plumbing	90	90	0% 31-Dec-23	29-Mar-24		20-May-24	52		
05-6030-1(5a)	Drainage	90	90	0% 31-Dec-23			20-May-24	52		
05-6040-1(5a)	ELV	90	90	0% 31-Dec-23	29-Mar-24		27-Apr-24	29		
05-6050-1(5a) 05-6060-1(5a)	Lift Building Management System (BMS)	90 60	90 60	0% 31-Dec-23 0% 31-Dec-23	29-Mar-24 28-Feb-24	01-Oct-23 2 01-Sep-23 2	29-Dec-23	-91 -121		
	Way and Associated Structures Foundation		105	06-Jan-22 A		01-Sep-23		-30		
05-5380	Structural Design	90	0	80% 06-Jan-22 A		16-Sep-23		-105		Structural Design
05-5540-3(6D)	Fire services installation design	60	30	50% 24-Apr-23 A		· · ·		15		
Building services of	design (excluding fire services installation design)	105	105	31-Dec-23	13-Apr-24	01-Sep-23	30-Jan-24	-74		
05-5560	Building Management System (BMS)	90	90	0% 31-Dec-23	29-Mar-24	01-Sep-23	29-Nov-23	-121		
05-7240	Electrical Services and Lighting	90	90	0% 31-Dec-23	29-Mar-24	15-Oct-23	12-Jan-24	-77		
05-7250	MVAC		105	0% 31-Dec-23	13-Apr-24		28-Jan-24	-76		
05-7260 05-7270	Plumbing Drainage		105 105	0% 31-Dec-23 0% 31-Dec-23	13-Apr-24 13-Apr-24		30-Jan-24 30-Jan-24	-74		
05-7280	ELV		105	0% 31-Dec-23	13-Apr-24		12-Jan-24	-92		
DDA Reception Pav			105	09-Apr-21 A		01-Sep-23		166		
05-3280	Foundation Design	90	30	66.67% 09-Apr-21 A	29-Jan-24	22-Sep-23 2	21-Oct-23	-100		
05-5390	Structural Design	60	15	75% 03-Mar-23 A	14-Jan-24	01-Dec-23	15-Dec-23	-30		Structural D
05-5540-4(6D)	Fire services installation design	60	30	50% 24-Apr-23 A			,	75		<b>—</b>
	lesign (excluding fire services installation design)		105	31-Dec-23		01-Sep-23 2		166		
05-2130-1 05-7290	Building Management System (BMS) Electrical Services and Lighting	60 90	60 90	0% 31-Dec-23 0% 31-Dec-23	28-Feb-24			-121		
05-7300	MVAC		90	0% 31-Dec-23	13-Apr-24		26-Sep-24 19-Jun-24	181 67		·····
05-7310	Plumbing		105	0% 31-Dec-23	13-Apr-24		13-May-24	30		
05-7320	Drainage	105	105	0% 31-Dec-23			13-May-24	30		
05-7330	ELV	90	90	0% 31-Dec-23	_		26-Sep-24	181		
DDA CCCW Buildin		335	60				28-Jul-24	151		
05-5540-5(6D)	Fire services installation design	60	30	50% 08-Dec-22 A		15-Mar-24		75		
	design (excluding fire services installation design)	335	60			01-Oct-23		151		
05-2130-2 05-7340	Building Management System (BMS) Electrical Services and Lighting	60 90	60 29	0% 31-Dec-23 60% 21-Jun-22 A	28-Feb-24		29-Nov-23 28-Jul-24	-91 151		
05-7350	MVAC	60	60	0% 31-Dec-23	28-Feb-24 28-Feb-24		20-Jui-24 21-Mar-24	22		
05-7360	Plumbing	60	60	0% 31-Dec-23	28-Feb-24		13-Apr-24	45		
05-7370	Drainage	60	60	0% 31-Dec-23	28-Feb-24	14-Feb-24	13-Apr-24	45		¢ <u>+</u>
05-7380	ELV	60	60	0% 31-Dec-23	28-Feb-24	30-May-24	28-Jul-24	151		
DDA Roads and Util	lities (2.10)		120	13-Jan-21 A		06-Nov-23	19-Apr-24	-9		
	orks layout on the Artificial Island (2.10.13)	90	14	08-Aug-22 A		22-Mar-24 (		82		
05-4470	Roads and hardstandings layout	90	14	84.44% 08-Aug-22 A		22-Mar-24 (		82		Roads and ha
05-4480	Road signage and markings	90	14	84.44% 08-Aug-22 A		22-Mar-24 (		82		Road signage
	In the Artificial Island (2.10.14)	427	30			12-Jan-24 (		66		
05-4430	Foul Sewerage Contaminated Sewerage (Site Wide Sewerage System)	60	30 30	50% 14-Mar-23 A 50% 14-Mar-23 A		12-Jan-24 12-Jan-24	10-Feb-24 10-Feb-24	12		
05-4440-1(M55)	Ship-to-shore Sewage Transfer System for IWMF Vessels (Caisson 13)	240	11	95.56% 13-Jan-22 A		09-Feb-24		40		Ship-to-shore Sew
05-4440-2(M55)	Ship-to-shore Sewage Transfer System for Passenger Ferry	90	30	70% 13-Jan-21 A		06-Mar-24 (		66		
Drainage system d	esign on the Artificial Island (2.10.15)	90	23	22-Feb-23 A	22-Jan-24	19-Jan-24	10-Feb-24	20		
05-5310	Surface water Drainage System	90	23	75% 22-Feb-23 A		19-Jan-24		20		
	em design on the Artificial Island (2.10.16)		120			22-Nov-23		-9		
05-5250	Potable Water Distribution System		105	0% 31-Dec-23	13-Apr-24	31-Dec-23		0		
	Described Water Contents	90	90	0% 31-Dec-23	29-Mar-24	15-Jan-24 *	13-Apr-24	15		
05-5260	Recycled Water System							1		
05-5260 05-5270 05-5280	Irrigation System Rainwater harvesting System	90 90 90	90 90	0% 31-Dec-23 0% 31-Dec-23	29-Mar-24 29-Mar-24	06-Jan-24 (	04-Apr-24 04-Apr-24	6		

3-Month Rolling Programme (	(December 2023)
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Actual Work 

Critical Remaining Work 🔶

• Critical Milestone

Contract No Management Fac	ilities, Phase 1   🛄	<b>景境保護署</b> Invironmental Protection Department
Jan	2024 Feb	Mar
74	75	76
	ectrical Services and Lighting	
	VAC	
P	umbing	
	ainage	
	V	
B	uilding Management System (BMS)	
mentation works design (2.8.15.0	9.01 to 40)	
-		
		(
	<u>.</u>	Plumbing
		Building Management System (BMS)
Fire	services installation design	
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		MVAC
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		Building Management System (BMS)
		Fire services installation design
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	undation Design	
Final Structural Design	undation Design	Fire services installation design
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	undation Design	Fire services installation design Building Management System (BMS)
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Structural Design		Building Management System (BMS)
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Structural Design	re services installation design	Building Management System (BMS)
Structural Design     Structural Design     Fi     Fi     Fi     Roads and hardstandings layi     Road signage and markings	re services installation design	Building Management System (BMS)
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Structural Design  Structural Design  Fi Roads and hardstandings layo Road signage and markings C	e services installation design ul ul severage ontaminated Severage (Site Wide Severage Syste	Building Management System (BMS)
Structural Design  Structural Design  Fi Roads and hardstandings layo Road signage and markings Fi C Nip-to-shore Sewage Transfer Sys	e services installation design ul severage ontaminated Sewerage (Site Wide Sewerage Syste fem for IWMF Vessels (Calsson 13)	Building Management System (BMS)
Structural Design  Structural Design  Fi Roads and hardstandings layo Road signage and markings Fi C Nip-to-shore Sewage Transfer Sys	e services installation design ul ul severage ontaminated Severage (Site Wide Severage Syste	Building Management System (BMS)
Structural Design  Structural Design  Roads and hardstandings laye Road signage and markings  Fr C Nip-to-shore Sewage Transfer Sys S	e services installation design ul severage ontaminated Sewerage (Site Wide Sewerage Syste fem for IWMF Vessels (Catsson 13) ip-to-shore Sewage Transfer System for Passeng	Building Management System (BMS)
Structural Design  Structural Design  Roads and hardstandings laye Road signage and markings  Fr C Nip-to-shore Sewage Transfer Sys S	e services installation design ul severage ontaminated Sewerage (Site Wide Sewerage Syste fem for IWMF Vessels (Calsson 13)	Building Management System (BMS)
Structural Design  Structural Design  Roads and hardstandings laye Road signage and markings  Fr C Nip-to-shore Sewage Transfer Sys S	e services installation design ul severage ontaminated Sewerage (Site Wide Sewerage Syste fem for IWMF Vessels (Catsson 13) ip-to-shore Sewage Transfer System for Passeng	Building Management System (BMS)
Structural Design  Structural Design  Roads and hardstandings laye Road signage and markings  Fr C Nip-to-shore Sewage Transfer Sys S	e services installation design ul severage ontaminated Sewerage (Site Wide Sewerage Syste fem for IWMF Vessels (Catsson 13) ip-to-shore Sewage Transfer System for Passeng	Building Management System (BMS)
Structural Design  Structural Design  Roads and hardstandings laye Road signage and markings  Fr C Nip-to-shore Sewage Transfer Sys S	e services installation design ul severage ontaminated Sewerage (Site Wide Sewerage Syste fem for IWMF Vessels (Catsson 13) ip-to-shore Sewage Transfer System for Passeng	Building Management System (BMS)
Structural Design  Structural Design  Roads and hardstandings laye Road signage and markings  Fr C Nip-to-shore Sewage Transfer Sys S	e services installation design ul severage ontaminated Sewerage (Site Wide Sewerage Syste fem for IWMF Vessels (Catsson 13) ip-to-shore Sewage Transfer System for Passeng	Building Management System (BMS)
Structural Design  Structural Design  Roads and hardstandings laye Road signage and markings  Fr C Nip-to-shore Sewage Transfer Sys S	e services installation design ul severage ontaminated Sewerage (Site Wide Sewerage Syste fem for IWMF Vessels (Catsson 13) ip-to-shore Sewage Transfer System for Passeng	Building Management System (BMS)
Structural Design  Structural Design  Roads and hardstandings laye Road signage and markings  Fr C Nip-to-shore Sewage Transfer Sys S	e services installation design ul severage ontaminated Sewerage (Site Wide Sewerage Syste fem for IWMF Vessels (Catsson 13) ip-to-shore Sewage Transfer System for Passeng	Building Management System (BMS)
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Structural Design  Structural Design  Roads and hardstandings laye Road signage and markings  Fr C Nip-to-shore Sewage Transfer Sys S	e services installation design ut Sewerage ontaminated Sewerage (Site Wide Sewerage Syste form for IWMF Vessels (Caisson 13) hip-to-shore Sewage Transfer System for Passenge Drainage System	Building Management System (BMS)

KEPPEL SUGARORS	町 - 泉 草 県 谷 公 寺 い ZHEN BUA MOIST VENTURE			t		0	1	1	Tabilities			ted Waste Manageme
ctivity ID	Adivity Name		Original Duration		Activity % Current Start Complete	Current Finish	Late Start	Late Finish	Total M73 Re Float	emarks	2023 Dec 73	Jan 74
05-5300	External FS Systems		60		0% 31-Dec-23	28-Feb-24		20-Jan-24	-39			E&M system for s
05-5300-1(M24) 05-5300-2(M24)	E&M system for seawater intake (2.10.16.0 Building Services system for seawater inta		105		60% 04-Apr-22 A 0% 31-Dec-23	13-Jan-24 13-Apr-24	· ·	19-Apr-24 19-Apr-24	97			E aivi system for s
05-5300-3(5a)	Chemical scrubber system for odour control		105		0% 31-Dec-23	13-Apr-24		19-Apr-24	6			
Design of telecon	mmunication and other utilities (2.10	0.18)	516	90	14-Jun-22 A	29-Mar-24	06-Nov-23	19-Apr-24	21			
05-4580	Power Distribution System concept / scher	matics	75		0% 31-Dec-23	14-Mar-24	20-Jan-24	· ·	20			
05-4590	Site Lighting Concept / Schematics		90		0% 31-Dec-23	29-Mar-24	21-Jan-24	· ·	21			
05-4600 05-4610	Lightning Protection System concept / sch Site ELV Network System - Communication		90		0% 31-Dec-23 60% 16-Aug-22 A	29-Mar-24	05-Jan-24 06-Dec-23	· ·	-25			
05-4620	Site ELV Network System - Security System		75		60% 10 Jun-22 A			04-Jan-24	-25			
05-4630	Site ELV Network System - Navigation aid	Is concept / schematics	60	60	0% 31-Dec-23	28-Feb-24	06-Nov-23	04-Jan-24	-55			
05-4640	Microwave transmission of FS direct link		105		80% 22-Aug-22 A			04-Jan-24	2			Microwave transmission of FS direct
05-4650	Fuel Handling System concept / schematic	CS	60 90		0% 31-Dec-23 03-Jul-23 A	28-Feb-24	05-Feb-24 22-Dec-23	04-Apr-24 19-Jan-24	36 -9			
05-5040	ebridges design (2.10.26) Design of Pipe / Utilities Trenches concept	t	90			28-Jan-24		19-Jan-24	-9			
05-5050	Sitewide Utilities Trenches Design	l	90			13-Jan-24		19-Jan-24	6			Sitewide Utilities 1
DDA Architectura	al, Finishes and Landscaping Works	(2.11)	670	120	15-Jun-21 A	28-Apr-24	07-Jul-23	01-Oct-24	156			
External and inte	ernal finishes design		516	59	15-Jun-21 A	27-Feb-24	02-Oct-23	01-Oct-24	217			
05-4670	External and internal finishes design for In	cineration Plant Building (2.11.15.01)	90	59	25% 19-Sep-22 A	27-Feb-24	29-Apr-24	26-Jun-24	120			
05-4690	External and internal finishes design for Tu	3	90		80% 10-Aug-22 A			02-Dec-23	-37			External and internal finish
05-4700 05-4710	External and internal finishes design for C	5	90		80% 10-Aug-22 A 40% 02-Sep-22 A			27-Apr-24	-27			External and internal finishes design for C
05-4710	External and internal finishes design for Cl External and internal finishes design for Re	-	90		25% 10-Nov-22 A			01-Jan-24 14-Jan-24	-27			
05-4730	External and internal finishes design for M	•	60		25% 16-Aug-23 A			28-Jan-24	0			
05-4740	External and internal finishes design for the	e Wastewater Treatment Plant (2.11.17)	60	29	25% 06-Jun-23 A	28-Jan-24	29-Apr-24	27-May-24	120			i 
05-4750		e Water Treatment Plant Building (2.11.08)	60		25% 16-Aug-23 A			28-Jan-24	0			
05-4760 05-4770	External and internal finishes design for the		60		40% 21-Sep-23 A		30-Jan-24		30			External and internal finishes desi
05-5420	External and internal finishes design for the External and internal finishes design for El		90		80% 10-Aug-22 A 80% 15-Jun-21 A			01-Oct-24 30-Oct-23	-90			
Landscaping Wo	•		105		12-Jan-23 A		07-Jul-23		-177			
05-4780	Landscape Masterplan & Landscape Desig	gn for Water Feature (2.11.19.01)	105	3	80% 26-Jan-23 A	02-Jan-24	07-Jul-23	09-Jul-23	-177			Landscape Masterplan & Landscape
05-4780-4(6C)	Landscape Architectural Design for Admin	istration Building (2.11.07.09)	105	3	80% 12-Jan-23 A	02-Jan-24	07-Jul-23	09-Jul-23	-177			Landscape Architectural Design for A
Facade Structura	al Design		670	120	07-Apr-22 A	28-Apr-24	26-Sep-23	25-Aug-24	119			
05-8020(6D)	Process Building & Wastewater Treatment	t Plant (2.6.14.01)	90		80% 07-Apr-22 A			07-May-24	111			Process B
05-8040(6D)	Reception Pavilion (2.3.14.07.01)	n Diant Building (2.4.14.01)	90		0% 30-Jan-24	28-Apr-24		25-Aug-24	-81			
05-8050(6D) 05-8060(6D)	Mechanical Treatment Plant & Desalination Administration Building and Viewing Galler		60		30% 01-Dec-23 A 0% 31-Dec-23*	29-IVial -24 28-Feb-24	26-Sep-23	08-Jan-24 24-Nov-23	-81			
05-8080(6D)	Elevated Driveway and Associated Structu	-	90		0% 31-Dec-23	29-Mar-24	23-Apr-24		114			
05-8090(6D)	Sky Deck near Administration Building Stru	uctural Design	90	90	0% 31-Dec-23	29-Mar-24	15-Feb-24	14-May-24	46		1	
	Commissioning (2.12)		746		23-Apr-19 A		-	15-Oct-24	110			
05-4810-1(5a)	Factory Acceptance Testing plan (2.12.09.		90		80% 23-Apr-19 A			01-Sep-23	-151			FAT of DCS - Software S
05-4810-2(M55) 05-4820	FAT of DCS - Software SIL FAT Plant for F Site Acceptance Testing plan (2.12.10)	Process Island (2.12.09.03.01)	105		80% 19-May-22 A 25% 28-Nov-23 A			06-Mar-24 30-Nov-23	-87			
05-4830	System commissioning plan (2.12.11)		90		0% 30-Mar-24	27-Jun-24		15-Oct-24	110			
DDA Transportatio	ion Facilities for the Operation (2.13)		377	255	30-Jun-23 A	10-Sep-24	03-Dec-23	01-Oct-25	386			
05-4850	Design of vehicles for MSW and Ash and F	Residues delivery (2.13.05)	240	240	0% 15-Jan-24*	10-Sep-24	03-Dec-23	29-Jul-24	-43			
05-4860	Design of marine vessels for the use of the	e Employer and visitors (2.13.06)	240				,	01-Oct-25	507			
DDA Miscellaneou			241		28-Feb-24	25-Oct-24	-	04-Jan-25	71			
05-4880	Design of visitors and environmental education	ation facilities (2.14.06)	241		0% 28-Feb-24* 31-Dec-23	25-Oct-24 29-Mar-24	,	04-Jan-25 30-Nov-24	71 246			
DDA Miscellaneou	Covered walkway at passenger berth (2.15)	F. 04)	90			29-Mar-24		30-Nov-24				
05-4900	Gatehouses (2.15.07)	3.00/	60		0% 31-Dec-23	29-1vial -24 28-Feb-24		01-Oct-24	240			
05-4910	Weighbridge office (2.15.08)		62		0% 31-Dec-23	01-Mar-24		10-Feb-24	-20			
DDA Auxiliary Pla	ant Systems (2.16)		669	180	26-Apr-22 A	27-Jun-24	31-Oct-23	27-Apr-24	-61			
05-4920	Maintenance workshops (2.16.04)		0	-	0% 30-Mar-24	30-Mar-24		12-Jan-24	-77			
05-4930	Vehicle Fuel Filling Station (2.16.05)		90			27-Jun-24		20-Mar-24	-99 -61			
05-4940 05-4940-1(5a)	Stores systems (2.16.06) IWMF Laboratory (2.16.08)		90		0% 30-Mar-24 80% 11-Nov-22 A	27-Jun-24 07-Feb-24		27-Apr-24 27-Apr-24	80			
05-4940-2(5a)	Hoisting systems (2.16.10)		180		80% 24-May-23 A			27-Apr-24	88			
05-4940-3(6E)	EOTC System (2.16.11)		90		80% 26-Apr-22 A	30-Jan-24		30-Nov-23	-61			
DDA O&M Packag	0		223		15-Feb-24	24-Sep-24	09-Jun-24		102			
05-8070(6E)	Warehouse (O&M Scope)		210		0% 28-Feb-24	24-Sep-24	-	04-Jan-25	102			
05-8080(6E) 05-8090(6E)	Workshop (O&M Scope) Ash & Residues Container (O&M Scope)		210		0% 28-Feb-24 0% 15-Feb-24	24-Sep-24 12-Aug-24	09-Jun-24 09-Jul-24	04-Jan-25 04-Jan-25	102 145			
05-8100(6E)	Bicar Debagging Station (O&M Scope)		180			26-Aug-24	-		145			
05-8110(6E)	Other Mobile Plants (O&M Scope)		180		0% 15-Mar-24	10-Sep-24			116			
Procurement of Ma	lajor Equipment		1184	513	28-Feb-22 A	26-May-25	10-Jul-23	15-May-25	-11			
Off-site Fabrication	n of Incineration Modules		972	369	22-May-22 A	02-Jan-25	31-Jul-23	14-Aug-24	-141			
Fabrication of Mod	odule (TPU)		972	369	22-May-22 A	02-Jan-25	09-Aug-23	11-Aug-24	-144			
PFab 1- Line 1			698	152	23-May-22 A	30-May-24	30-Dec-23	30-May-24	0			
E&I Installation (On-	n-site Installation)		581		25-Nov-22 A			30-Mar-24	0			
Electrical 06-TPU-1-1280	PFab 1-Line 1 - Electrical Cable Pulling an	nd Termination	271		04-Aug-23 A 57.78% 18-Sep-23 A				-1 -1 Update	e Actual Start Date		
30 11 0 1-1200			100	70	0070 10 30p-23 A	10 1901-24	00 000-20		- opudic			

3-Month Rolling Programme (December 2023)	
PAGE 5 OF 16	

Keppel Seghers

Critical Remaining Work 🔶 ♦ ♦ Milestone

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Con

ntract No.	EP/S	SP/66/1	2
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Jan 74	2024 Feb 75	Mar 76
		External FS Systems
E&M system for seawate	r intake (2.10.16.07)	
		Power Distribution System
		Power Distribution System
	<ul> <li>Site ELV Network System - Communication</li> <li>Site ELV Network System - Security System</li> </ul>	
		Site ELV Network System - Navigation aids concept.
mission of FS direct link		
		Fuel Handling System concept / schematics
	Design of Pipe / Utilities Trenches concept	
Sitewide Utilities Trenche		
al and internal finishes des	ign for Turbine Hall Building	External and internal finishes design for Incineration P
finishes design for CCCW		
	External and internal finishes design for Chim	
	External and internal finishes design for MT P	External and internal finishes design for Reception Pay lant Building (2.11.16)
	External and internal finishes design for the V	
	External and internal finishes design for the V	
internal finishes design for	External and internal finishes design for the A the IWMF Substation (2.11.20)	aministration Building (2.11.19)
	External and internal finishes design for Eleva	ated Driveway
	n for Water Feature (2.11.19.01) tration Building (2.11.07.09)	
Column Design of Automis		
Process Building	& Wastewater Treatment Plant (2.6.14.01)	
		Administration Building and Viewing Gallery (2.7.12.
	Factory Acceptance Testing plan (2.12.09	.02-07) (8 Packages)
of DCS - Software SIL FAT	Plant for Process Island (2.12.09.03.01)	
		Site Acceptance Testing plan (2.12.10)
		l
		Gatehouses (2.15.07)
		Weighbridge office (2.15.08)
	IW/ME Laboratony (2.16.09)	I
	IWMF Laboratory (2.16.08) Hoisting systems (2.16.10)	
	EOTC System (2.16.11)	
		PF ab 1-Line 1 - Electrica
		Prad I-Line I - Electrica
Actrual Milesto	one	
Critical Milesto		

	Adivity Name		emaining Duration	Activity % Current Start Current Finish Complete	Late Start Late	e Finish	Total M73 Remarks Float	2023 Dec	
U-1-1290	PFab 1-Line 1 - Electrical Equipment Installation	180	61	66.11% 04-Aug-23 A 29-Feb-24	30-Dec-23 28-		-1	73	
nent		581	91	25-Nov-22 A 30-Mar-24			0		
U-1-1310 U-1-1320	PFab 1-Line 1 - Instrument Cable Pulling and Termination PFab 1-Line 1 - Instrument Equipment Installation	180	25 70				0		
U-1-1320	PFab 1-Line 1 - Instrument Tubing Installation	180	89				0 Update Actual Start Date		
on	·	698	140	23-May-22 A 18-May-24	31-Dec-23 18-	May-24	0		
-1-1020	PFab 1-Line 1 - Insulation	698	140			,			
nissioning -1-1030	PFab 1-Line 1 - Pre-commissioning	146	146 146	06-Jan-24 30-May-24 0% 06-Jan-24 30-May-24*	06-Jan-24 30- 06-Jan-24 30-	-	0 0 Add Successor 16-1660 FS0		
Line 2	Fi ab Filme Fi Frecommissioning	706	140	22-May-22 A 17-May-24		,	0		
	site Installation)	182	120	· · · · ·		-	0		
al		182	120	18-Oct-23 A 04-May-24	06-Jan-24 04-	May-24	0		
J-2-1270 J-2-1280	PFab 1-Line 2 - Electrical Cable Pulling and Termination	180		37.78% 18-Oct-23 A 04-May-24			0 Update Actual Start Date		
ent	PFab 1-Line 2 - Electrical Equipment Installation	112	112 112		06-Jan-24 26- 06-Jan-24 26-		0 Update OD		
J-2-1310	PFab 1-Line 2 - Instrument Equipment Installation	112	112	0% 06-Jan-24 26-Apr-24	06-Jan-24 26-	Apr-24	0		
J-2-1320	PFab 1-Line 2 - Instrument Tubing Installation	112	112		06-Jan-24 26-		0		
n 2-1010	PFab 1-Line 2 - Insulation	698 698	139 139	22-May-22 A 17-May-24 80.09% 22-May-22 A 17-May-24*			0		
Line 3		769	304	23-May-22 A 29-Oct-24		,	-103		
Illation		201	201	31-Dec-23 18-Jul-24	31-Dec-23 18-		0		
al		201	201	31-Dec-23 18-Jul-24	31-Dec-23 18-		0		
-3-1270 -3-1280	PFab 1-Line 3 - Electrical Cable Pulling and Termination PFab 1-Line 3 - Electrical Equipment Installation	180	180 180		21-Jan-24 18- 31-Dec-23 27-		0		
-3-1280 ent	י המס ה-בוווכיס י בוכטווגמו בין עווידוע ווואומוומוטוו	201	201	31-Dec-23 27-Jun-24 31-Dec-23 18-Jul-24	31-Dec-23 27- 31-Dec-23 18-		0		
-3-1300	PFab 1-Line 3 - Instrument Cable Pulling and Termination	180	180	0% 21-Jan-24 18-Jul-24*	21-Jan-24 18-	Jul-24	0		
1-3-1310	PFab 1-Line 3 - Instrument Equipment Installation	180	180		31-Dec-23 27-		0		
I-3-1320 n	PFab 1-Line 3 - Instrument Tubing Installation	180 769	180 304	0% 31-Dec-23 27-Jun-24 23-May-22 A 29-Oct-24	31-Dec-23 27- 13-Sep-23 12-		0 -109		
3-1010	PFab 1-Line 3 - Insulation	769	304		13-Sep-23 12-		-109		
Line 4		767	304	25-May-22 A 29-Oct-24			-109		
Illation		194	194	31-Dec-23 11-Jul-24	31-Dec-23 11-	Jul-24	0		
<b>al</b> J-4-1270	PFab 1-Line 4 - Electrical Cable Pulling and Termination	194 180	194 180	31-Dec-23         11-Jul-24           0%         14-Jan-24         11-Jul-24*	31-Dec-23 11- 14-Jan-24 11-		0		
J-4-1270 J-4-1280	PFab 1-Line 4 - Electrical Equipment Installation	180	180		31-Dec-23 27-		0		
ent		194	194	31-Dec-23 11-Jul-24	31-Dec-23 11-	Jul-24	0		
J-4-1300	PFab 1-Line 4 - Instrument Cable Pulling and Termination	180	180	0% 14-Jan-24 11-Jul-24*	14-Jan-24 11-		0		
J-4-1310 J-4-1320	PFab 1-Line 4 - Instrument Equipment Installation PFab 1-Line 4 - Instrument Tubing Installation	180	180 180	0% 31-Dec-23 27-Jun-24 0% 31-Dec-23 27-Jun-24	31-Dec-23 27- 31-Dec-23 27-		0		
n		767	304	25-May-22 A 29-Oct-24	13-Sep-23 12-		-109		
4-1010	PFab 1-Line 4 - Insulation	767	304	60.37% 25-May-22 A 29-Oct-24*	13-Sep-23 12-	Jul-24	-109		
Line 5		822	369	04-Jun-22 A 02-Jan-25	09-Aug-23 11-	Aug-24	-144		
allation al		194	194	v	03-Jan-24 19-		-30		
ai J-5-1270	PFab 1-Line 5 - Electrical Cable Pulling and Termination	194 180	194 180		03-Jan-24 19- 22-Jan-24 19-		-30 -30		
J-5-1280	PFab 1-Line 5 - Electrical Equipment Installation	180	180	0% 07-Feb-24 04-Aug-24	03-Jan-24 30-	Jun-24	-35		
<b>ent</b> J-5-1300	PFab 1-Line 5 - Instrument Cable Pulling and Termination	194 180	194 180		03-Jan-24 14-		-35		
J-5-1300	PFab 1-Line 5 - Instrument Equipment Installation	180	180		17-Jan-24 14- 03-Jan-24 30-		-35		
J-5-1320	PFab 1-Line 5 - Instrument Tubing Installation	180	180		03-Jan-24 30-		-35		
n		822	369	04-Jun-22 A 02-Jan-25	•	•	-144		
5-1010	PFab 1-Line 5 - Insulation	822	369		ů.	0	-144		
Line 6		761	342	08-Jul-22 A 06-Dec-24			-117		
allation		212	212 212	31-Dec-23 29-Jul-24 31-Dec-23 29-Jul-24	31-Dec-23 29- 31-Dec-23 29-		0		
J-6-1270	PFab 1-Line 6 - Electrical Cable Pulling and Termination	180	180		01-Feb-24 29-		0		
I-6-1280	PFab 1-Line 6 - Electrical Equipment Installation	180	180		31-Dec-23 27-				·····
ent I-6-1300	PFab 1-Line 6 - Instrument Cable Pulling and Termination	194 180	<b>194</b> 180		31-Dec-23 11- 14-Jan-24 11-		0		
-6-1310	PFab 1-Line 6 - Instrument Equipment Installation	180	180		31-Dec-23 27-		0		:
I-6-1320	PFab 1-Line 6 - Instrument Tubing Installation	180	180		31-Dec-23 27-		0		:
n 4 1010	DEah 1 Ling 4 Jaculation	761	342	08-Jul-22 A 06-Dec-24		•	-117		
6-1010 on of Mod	PFab 1-Line 6 - Insulation Jule (FGC)	761 800	342 309	55.06% 08-Jul-22 A 06-Dec-24 25-May-22 A 03-Nov-24		•	-117		
Line 1		666	141	25-May-22 A 19-May-24		° .	0		
lation		134	112	, , , , , , , , , , , , , , , , , , ,		1	0		
1		134	76	04-Aug-23 A 15-Mar-24		·	0		
-1-1250	PFab 2-Line 1 - Electrical Cable Pulling and Termination	120		36.67% 18-Sep-23 A 15-Mar-24*	31-Dec-23 15-	Mar-24	0 Update Actual Start Date		
-1-1260 ent	PFab 2-Line 1 - Electrical Equipment Installation	120	58 112	5			0 Update Actual Start Date		
2-1-1280	PFab 2-Line 1 - Instrument Cable Pulling and Termination	134	90	25% 01-Oct-23 A 20-Api-24 25% 21-Oct-23 A 29-Mar-24*			0 Update Actual Start Date		
-1-1290	PFab 2-Line 1 - Instrument Equipment Installation	120	112				0 Update Actual Start Date		·····
C-1-1300	PFab 2-Line 1 - Instrument Tubing Installation	120	89				0 Update Actual Start Date		
n 1 1120	DEab 2 Line 1 Insulation	666	141	25-May-22 A 19-May-24		-	0		
-1-1130	PFab 2-Line 1 - Insulation	666	141	78.83% 25-May-22 A 19-May-24	31-Dec-23 19-	ividy-24	U		

3-Month Rolling Programme (December 2023)
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Actual Work Remaining Work

Critical Remaining Work 🔶 ♦ Milestone

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Contract No Management Fac	. EP/SP/66/12 ilities, Phase 1	<b>R</b>	最境保護署 Environmental Protection Department	
Jan 74	2024 Feb 75		Mar 76	_
77	15		PFab 1-Line 1 - Electrical Equipment Installation	
				ï
	1 1 1		PFab 1-Line 1 - Instrument Equip	me Pf
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			PFab 2-Line 1 - Electri	cal
		PFa	ab 2-Line 1 - Electrical Equipment Installation	
				ł
				Pf
				_
Actrual Milestone				

Critical Milestone

	Activity Name	Original Duration			Current Finis	h Late Start	Late Finish	Total M73 Remarks Float	2023 Dec	Waste Man
ctrical		128	120	) 18-Oct-23 A	04-May-24	05-Jan-24	04-May-24	0	73	74
-FGC-2-1250	PFab 2-Line 2 - Electrical Cable Pulling and Termination	120	106	5 11.67% 18-Oct-23 A	04-May-24*	19-Jan-24	04-May-24	0 Update Actual Start Date		
FGC-2-1260	PFab 2-Line 2 - Electrical Equipment Installation	112			26-Apr-24			0 Update OD		
-FGC-2-1280	PFab 2-Line 2 - Instrument Cable Pulling and Termination	120						0 Update Actual Start Date		
-FGC-2-1290	PFab 2-Line 2 - Instrument Equipment Installation	112				05-Jan-24		0 Update OD		
-FGC-2-1300 lation	PFab 2-Line 2 - Instrument Tubing Installation	112			26-Apr-24 19-May-24	05-Jan-24 31-Dec-23	· ·	0 Update OD		
FGC-2-1010	PFab 2-Line 2 - Insulation	405			-		-	0		
b 2 - Line 3		141	141	31-Dec-23	19-May-24	31-Dec-23	19-May-24	0		
Installation		134			-	31-Dec-23		0		
ctrical -FGC-3-1250	PFab 2-Line 3 - Electrical Cable Pulling and Termination	134			12-May-24 12-May-24*	31-Dec-23 14-Jan-24		0		_
-FGC-3-1260	PFab 2-Line 3 - Electrical Equipment Installation	120			28-Apr-24		-	0		
trument -FGC-3-1280	PFab 2-Line 3 - Instrument Cable Pulling and Termination	134				31-Dec-23		0		
-FGC-3-1280 -FGC-3-1290	PFab 2-Line 3 - Instrument Cable Pulling and Termination PFab 2-Line 3 - Instrument Equipment Installation	120				14-Jan-24 31-Dec-23		0 0		
-FGC-3-1300	PFab 2-Line 3 - Instrument Tubing Installation	120				31-Dec-23		0		
lation		60				09-Mar-24	,	0		
FGC-3-1170	PFab 2-Line 3 - Insulation	60			,	09-Mar-24	,	0		
ommissioning FGC-3-1180	PFab 2-Line 3 - Pre-commissioning	60 60				21-Mar-24 21-Mar-24	,	0		
2 - Line 4		141				31-Dec-23	,	0		
nstallation		134				31-Dec-23	,	0		
<b>ctrical</b> -FGC-4-1250	PFab 2-Line 4 - Electrical Cable Pulling and Termination	134 120				31-Dec-23 14-Jan-24		0		
-FGC-4-1250 -FGC-4-1260	PFab 2-Line 4 - Electrical Equipment Installation	120			-	31-Dec-23	-	0		
trument		134	134	4 31-Dec-23	12-May-24	31-Dec-23	12-May-24	0		
-FGC-4-1280 -FGC-4-1290	PFab 2-Line 4 - Instrument Cable Pulling and Termination PFab 2-Line 4 - Instrument Equipment Installation	120			-	14-Jan-24 31-Dec-23	-	0		
-FGC-4-1290	PFab 2-Line 4 - Instrument Equipment Installation	120			· ·	31-Dec-23 31-Dec-23		0		
lation		60			· ·	09-Mar-24		0		
GC-4-1010	PFab 2-Line 4 - Insulation	60				09-Mar-24	,	0		
ommissioning FGC-4-1020	PFab 2-Line 4 - Pre-commissioning	60 60			-	21-Mar-24 21-Mar-24	,	0		
<b>2 - Line 5</b>	FFab 2-Line 4 - Fre-commissioning	736			03-Nov-24		-			
Installation		134	134		19-Jul-24	08-Mar-24	°	0		
ctrical		134			19-Jul-24	08-Mar-24		0		
-FGC-5-1250	PFab 2-Line 5 - Electrical Cable Pulling and Termination	120			19-Jul-24*	22-Mar-24		0		
-FGC-5-1260 rument	PFab 2-Line 5 - Electrical Equipment Installation	120			05-Jul-24 19-Jul-24	08-Mar-24 08-Mar-24				
-FGC-5-1280	PFab 2-Line 5 - Instrument Cable Pulling and Termination	120				22-Mar-24		0		
-FGC-5-1290	PFab 2-Line 5 - Instrument Equipment Installation	120	-					0		
-FGC-5-1300 lation	PFab 2-Line 5 - Instrument Tubing Installation	120			03-Nov-24	08-Mar-24 11-Oct-23		-81		
FGC-5-1200	PFab 2-Line 5 - Insulation	736					14-Aug-24	-81		
l out & Shipping		15					14-Aug-23			
GC-5-1220	PFab 2-Line 5 - Load Out & ready to ship	15					14-Aug-23 24-Aug-23			
GC-5-1320	PFab 2-Line 5 - Delivery	10				0	24-Aug-23			
2 - Line 6		197	197		23-Jul-24	08-Aug-23	23-Jul-24	0		
nstallation		134			23-Jul-24	12-Mar-24		0		
<b>trical</b> FGC-6-1260	PFab 2-Line 6 - Electrical Cable Pulling and Termination	134 120			23-Jul-24 23-Jul-24*	12-Mar-24 26-Mar-24		0		
-FGC-6-1200	PFab 2-Line 6 - Electrical Equipment Installation	120				12-Mar-24		0		
rument		134	134			12-Mar-24		0		
FGC-6-1290	PFab 2-Line 6 - Instrument Cable Pulling and Termination PFab 2-Line 6 - Instrument Equipment Installation	120				26-Mar-24 12-Mar-24		0		
-FGC-6-1300 -FGC-6-1310	PFab 2-Line 6 - Instrument Edupment Installation PFab 2-Line 6 - Instrument Tubing Installation	120				12-Mar-24		0		
ation		133						0		
GC-6-1020	PFab 2-Line 6 - Insulation	133					22-May-24	0		
l out & Shipping FGC-6-1040	9 PFab 2-Line 6 - Load Out & ready to ship	15				-	22-Aug-23	-154 -154 Update OD		
ery	TT do z-tine o - Eodo Out a reduy to ship	10				-	01-Sep-23			
GC-6-1330	PFab 2-Line 6 - Delivery	10				-	01-Sep-23			
cation of Me	ga Steel Structure	30		· · · · · · · · · · · · · · · · · · ·			30-Dec-23	-8		
	teel Structure	30			07-Jan-24			-8		
i60 (6E)	Fabrication of Steel Structure (FM3) & Delivery	30		3 73.33% 17-Apr-23 A				-8		Fabrication of
	n of Turbine Modules	274				-	04-Dec-23	-123 -123		
	ndule (Power Island)	13			05-Apr-24 12-Jan-24	-		-123		
ine Module 1 080(6)	Turbine Module 1 - Delivery	13						-99 -99 Update OD		Tur
ine Module 2		274					05-Oct-23 04-Nov-23			
240-1(M55)	Turbine Module 2 - TBS Tower 2 Erection & Installation	274						-125		
280(6)	Turbine Module 2 - Delivery	30				-				
ine Module 3	3	183	97	7 15-Jun-23 A	05-Apr-24	30-Aug-23	04-Dec-23	-123		

3-Month Rolling Programme (Decemb	er i	202
PAGE 7 OF 16		

		表境保護署 invironmental Protection Department
	2024 Feb	Mar
	75	Mar 76
PEab 2-Line	5 - Load Out & ready to ship	
	5 - Edu Our a ready to ship	
	DEah 2 Line F. Dallare	
	PFab 2-Line 5 - Delivery	
PFab 2-Line	6 - Load Out & ready to ship	
	PFab 2-Line 6 - Delivery	
ucture (EM2) o Da	livery	
ucture (FM3) & De	Silver y	
e 1 - Delivery		
		tion 0 lock-llation
	Turbine Module 2 - TBS Tower 2 Ere	
		Turbine Module 2 - Delivery

Actrual Milestone Critical Milestone

ID	Adivity Name	Original			Current Start	Current Finis	h Late Start	Late Finish	Total M73 Remarks	2023	~
0( 1110 1(1155)		Duration			45 1 00 4	04.14.04		04.01	Float	Dec 73	Jan 74
06-4440-1(M55) 06-4480(6)	Turbine Module 3 - TBS Tower 3 Erection & Installation Turbine Module 3 - Delivery	168			07-Mar-24	06-Mar-24 05-Apr-24	0	04-Nov-23 04-Dec-23	-123	-	
Procurement for J		754				22-Mar-24			-107		
06-1120-1	Off-site Fabrication of ACC-2 Units	178	1	16 91.01%	28-Feb-22 A	15-Jan-24	15-Sep-23	30-Sep-23	-107		Off-site Fal
06-1120-2	Off-site Fabrication of ACC-3 Units	178				14-Feb-24		30-Oct-23	-107		
06-1140 06-1150	Factory Acceptance Test (FAT) for ACC-2 Factory Acceptance Test (FAT) for ACC-3	16			16-Jan-24 15-Feb-24	31-Jan-24 01-Mar-24	01-Oct-23 31-Oct-23		-107	-	
06-1160	Delivery to Site ACC-1	32				05-Jan-24	04-Oct-23		-88 Update Actual Start Date		Delivery to Site ACC-1
06-1170	Delivery to Site ACC-2	21	2		01-Feb-24	21-Feb-24	17-Oct-23		-107		
06-1190	Delivery to Site ACC-3	21			02-Mar-24	22-Mar-24		06-Dec-23	-107		
	CCCW Building Equipment	636				25-Jan-24	07-Dec-23		-24		Material Procurement & Equipme
06-1410(1) 06-1420(1)	Material Procurement & Equipment Manufacture Factory Acceptance Test (FAT)	300			01-Mar-22 A 03-Jan-24	02-Jan-24 10-Jan-24		09-Dec-23 17-Dec-23	-24 Remove Actual Finish Date     -24 Remove Actual Start Date; Update OD	-	Factory Acceptance
06-1420-1(1)	Delivery to Site	15			11-Jan-24	25-Jan-24	18-Dec-23		-24 Update OD		
Procurement for I	Mechanical Treatment Plant Building Plant Equipment	641	9	92	30-Jun-22 A	31-Mar-24	24-Feb-24	25-May-24	55		
06-1150-1(1)	Mechanical Equipment Material Submission and Approval	180	3			30-Jan-24	24-Feb-24	25-Mar-24	55		
06-1150-2(1)	Pipe Material Submission and Approval	180				30-Jan-24		25-Mar-24	55		
06-1150-3(1) 06-1160-1(1)	Electrical and Instrumentation Material Submission and Approval Mechanical Equipment Procurement (Incl. FAT)	180				30-Jan-24 30-Jan-24		25-Mar-24 25-Mar-24	55		
D6-1160-2(1)	Pipe Material Procurement (Incl. FAT)	180				30-Jan-24 30-Jan-24	24-Feb-24 24-Feb-24		55		
6-1160-3(1)	Electrical and Instrumentation Material Procurement (Incl. FAT)	180				30-Jan-24	24-Feb-24		55		
6-1180	Delivery to Site	61				31-Mar-24		,	55		
	Wastewater Treatment Plant Equipment	363				28-Feb-24			-26		
6-1200-1(1) 6-1200-2(1)	Mechanical Equipment Procurement (Incl. FAT) Pipe Material Procurement (Incl. FAT)	210				29-Jan-24 29-Jan-24	04-Jan-24 04-Jan-24		4		
6-1200-2(1)	Electrical and Instrumentation Material Procurement (Incl. FAT)	210				29-Jan-24		03-Jan-24	-26		
06-1220	Delivery to Site	30	3		30-Jan-24	28-Feb-24			-26		
rocurement for I	Desal & Demin Plant Equipment	576	12	20	21-Apr-22 A	28-Apr-24	03-Jan-24	27-May-24	29		
6-1240-1(1)	Mechanical Equipment Procurement (Incl. FAT)	576				29-Jan-24		02-Mar-24	33		
5-1240-2(1) 5-1240-3(1)	Pipe Material Procurement (Incl. FAT) Electrical and Instrumentation Material Procurement (Incl. FAT)	150				29-Jan-24 29-Jan-24	02-Feb-24 03-Jan-24	02-Mar-24	33	-	
5-1240-3(1) 5-1260	Delivery to Site	60			05-Jan-24*		03-Jan-24 03-Jan-24		-2	-	
6-1260-1(M55)	WTP chemical storage tank Material Submission and Approval	120		_		29-Jan-24	29-Jan-24		29	-	
6-1260-2(M55)	WTP chemical storage tank Procurement (Incl. FAT)	180				28-Feb-24	28-Feb-24		29	-	
)6-1260-3(M55)	Chemical storage tank delivery to Site	60			29-Feb-24	28-Apr-24		27-May-24	29		
	HV Transformers and Associated Equipment	60			31-Dec-23		16-Jan-24		16		
O6-1300	Transformers & EDG Delivery to Site	60			31-Dec-23 31-Dec-23	28-Feb-24 28-Feb-24	16-Jan-24	15-Mar-24	16 16		
	Control SCADA Systems	74				13-Mar-24					
06-1330	Factory Acceptance Test (FAT)	60	2	29 51.67%	30-Nov-23 A	28-Jan-24	07-Feb-24	06-Mar-24	38 Update Actual Start Date		
06-1340	Delivery to Site	31	3	31 0%	12-Feb-24	13-Mar-24	07-Mar-24	06-Apr-24	24		
	Onshore Crane at Berth	636	30			27-Oct-24			-50		
06-1350	Supplier Submission and Approval	60				01-Jan-24			-50	-	Supplier Submission and Approval
6-1360	Material & Equipment Procurement I Off-site Fabrication of Pipe Bridges (Incl. Pipings)	300				27-Oct-24 09-Apr-24			-50		
	ipe Rack (Prefab.3)	11				28-Feb-24					
Pipe Rack 3		11				28-Feb-24			-29		
06-5200(6)	Pipe Rack 3 (C3 & D2) Delivery	11				28-Feb-24			-29		
abrication of Pi		38	3		10-Feb-24	_	_	21-Feb-24	-26		
Pipe bridge B1 a	& B2 on the Roof of Turbine Hall	38	3	38	10-Feb-24	18-Mar-24	15-Jan-24	21-Feb-24	-26		
06-5390(6D)	Pre-commissioning (FAT)	15	1	15 0%	10-Feb-24*	24-Feb-24	15-Jan-24	29-Jan-24	-26		
06-5390-1(6D)	Load out & ready to ship	8			25-Feb-24		30-Jan-24		-26		
06-5390-2(6D)	Pipe bridge B1 & B2 on the Roof of Turbine Hall Delivery	15		_	04-Mar-24				-26		
abrication of Pi		119			°.	09-Apr-24 17-Jan-24			-86		
06-5420(6)	Petween Turbine Hall & ACC -1 Piping installation	40			°.			07-Dec-23	-26		Piping installation
06-5430(6)	Pipe Bridge C - ACC-1 Pre-commissioning (FAT)	15			0	17-Jan-24			-26		Pipel
.,	etween Turbine Hall & ACC -2	123				16-Feb-24			-56		
06-5460(6)	Piping installation	40			•	01-Feb-24			-56		<b>_</b>
06-5470(6)	Pipe Bridge C - ACC-2 Pre-commissioning (FAT)	15				16-Feb-24			-56		
	Divisor installation	220			°.	09-Apr-24			-86		
06-5500(6) 06-5510(6)	Piping installation Pipe Bridge C - ACC-3 Pre-commissioning (FAT)	40			15-Aug-23 A 03-Mar-24	02-Mar-24 17-Mar-24		07-Dec-23 22-Dec-23	-86		
06-5520(6)	ACC-1 to 3 Load out& ready to ship	6			18-Mar-24			22-Dec-23 28-Dec-23	-86	-	
06-5530(6)	Pipe Bridge C - ACC1 to 3 Delivery	17			24-Mar-24	09-Apr-24			-86		
ocurement for I	LV Electrical System for On-site Installation	31	3	31	29-Jan-24	28-Feb-24	26-Jun-24	26-Jul-24	149		
-1460	Delivery to Site	31			29-Jan-24*		26-Jun-24		149		
	Ventilation and Odor Treatment System	364				28-May-24					
6-1470(1)	Material Submission and Approval	30			31-Dec-23			22-Dec-23	-38		
5-1480	Material & Equipment Procurement	90			30-Jan-24	28-Apr-24		21-Mar-24	-38	-	
5-1490	Factory Acceptance Test (FAT)	90		90 0%	79-Fen- 74	28-May-24	//= jan_//	/(I-Anr. //	-38		L L L

3-Month Rolling Programme (December 2023)	Actual Work
PAGE 8 OF 16	Remaining W

Critical Remaining Work 🔶 emaining Work 🔷 🔷 Milestone

Actrual ٠ Critical Milestone

	2024 Feb	Mar
	75	76 Turbine Module 3 - TBS Tower 3 Erecti
Fabrication of AC	Off-site Fabrication of AC	; ;C-3 Units
	Factory Acceptance Test (FAT) for ACC-2	
		Factory Acceptance Test (FAT) for ACC-3
	Delivery to S	Site ACC-2
		Delivery to
mont Monufacture		
ment Manufacture nce Test (FAT)		
Delivery	to Site	
	Machanical Equipment Material Cubmission and Ar	mount
	Mechanical Equipment Material Submission and Ap Pipe Material Submission and Approval	aprovai
	Electrical and Instrumentation Material Submission	and Approval
	Mechanical Equipment Procurement (Incl. FAT)	
	Pipe Material Procurement (Incl. FAT) Electrical and Instrumentation Material Procurement	t (Incl. FAT)
I		
	Appendial Faulter and Day	
	Nechanical Equipment Procurement (Incl. FAT)	
	lectrical and Instrumentation Material Procurement	(Incl. FAT)
-		Delivery to Site
N	/ /echanical Equipment Procurement (Incl. FAT)	
	penancal Equipment rocurement (Incl. FAT)	
	lectrical and Instrumentation Material Procurement	
	TP chemical storage tank Material Submission and	Delivery to Site
	1	WTP chemical storage tank Procurement (Incl. FAT
	E	
		Delivery to Site
		,
Fa	ctory Acceptance Test (FAT)	
		Delivery to Site
val		
		Pipe Rack 3 (C3 & D2) Delivery
	Pre-co	mmissioning (FAT) Load out & ready to ship
		Pipe bridge B1 & B
e Bridae C - ACC-	Pre-commissioning (FAT)	
	Piping installation	
	Pipe Bridge C - ACC-	2 Pre-commissioning (FAT)
		Piping installation
		Pipe Bridge C - ACC
		ACC-1 to
		Delivery to Site
N	/jaterial Submission and Approval	

	Activity Name		Remaining	Activity % Current Start	Current Finis	h Late Start I		al M73 Remarks	Integrated Waste N
1820-1(6C)	Delivery to Site	Duration 60	Duration 60	Complete 0% 31-Dec-23	28-Feb-24	20-Jul-24 1	Flo. 17-Sep-24 20		73
	Plumbing System	150	150			28-Feb-24 2		9	
1580-1(6C)	Material Submission & Equipment Procurement	120	120	0% 31-Dec-23	28-Apr-24	28-Feb-24 2	26-Jun-24 5	9	
1580-2(6C)	Delivery to Site	60	60		3	28-May-24 2			
	Drainage System	45	45			20-Feb-24 (		0	
1620-3(M55) 1620-4(M55)	Material Submission & Equipment Procurement (Caisson 13) Delivery to Site	30	30 30			20-Feb-24 2 06-Mar-24 0		0	
	Security, Surveillance & Communication System	120	120			31-Oct-23 2			
1670	Material Submission and Approval	30	30	0% 29-Feb-24	29-Mar-24	31-Oct-23 2	29-Nov-23 -12	1	
1680	Material & Equipment Procurement	90	90	0% 30-Mar-24	27-Jun-24	30-Nov-23 2	27-Feb-24 -12	1	
curement for (	Cranage Equipment	30	61			27-Apr-24 (			
ste Crane		11	10			27-Apr-24 (	-		Wast
1740	Waste Crane Delivery to Site	11	10 30		_		,		was
ist System -8330(M57)	Monorail Hoist Delivery to Site	30	30	31-Jan-24 0% 31-Jan-24		07-May-24 0			
	Lift and Escalator Systems	60	60			30-Nov-23 2			
750	Material Submission and Approval	60	60	0% 29-Feb-24		30-Nov-23 2		1	
curement for S	Soft Landscape Materials	510	510	03-Jan-24	26-May-25	10-Jul-23 3	30-Nov-24 -17	7	
790	Material Submission and Approval	60	60			10-Jul-23 (			
800	Material Procurement & Nursery	450	450		-	08-Sep-23 3			
	Weighbridge System	30	30			20-Feb-24 2			
230(B)(M70)	Factory Acceptance Test (FAT - EIAC) Pipes and Insulation for on site installations	30 328	30 26			20-Feb-24 2 07-Dec-23 0			
260(1)	Pipes and insulation for on site installations Material & Equipment Procurement	120	20 15	, , , , , , , , , , , , , , , , , , ,					
270(1)	Delivery to Site	120	15	0% 15-Jan-24		22-Dec-23 (			
	Truck Wash System	150	150			12-Feb-24 1		3	
290(1)	Material Submission and Approval	60	60	0% 30-Jan-24	29-Mar-24	12-Feb-24 1	11-Apr-24 1	3	
300(1)	Material & Equipment Procurement	90	90	0% 30-Mar-24		12-Apr-24 1		3	
	Hard Landscape Materials (Paving, Greening, Furniture and Lighting)	90	90			05-Apr-24 (		6	
000(6)	Material Submission and Approval	90	90			05-Apr-24 (		6	
ourement for L	Building Finishes Materials (Doors, windows and louvers ie)	300 90	300 90			31-Oct-23 1			
)10(6) )10(6)	Incineration Plant Building - Material Submission, Procurement, FAT and Delivery ACC Equipment Yard - Material Submission, Procurement, FAT and Delivery	300	300	0% 31-Dec-23 0% 31-Dec-23	29-Mar-24 25-Oct-24	29-Mar-24 2 20-Jul-24 1			
020(6)	Turbine Hall Building - Material Submission, Procurement, FAT and Delivery	90	90	0% 09-Jan-24	07-Apr-24	03-Dec-23 (	,		
030(6)	CCCW Building - Material Submission, Procurement, FAT and Delivery	90	90	0% 31-Dec-23	29-Mar-24	28-Apr-24 2	26-Jul-24 11	9	L
030(6)10	Chimney - Material Submission, Procurement, FAT and Delivery	200	200	0% 29-Jan-24	5	02-Jan-24 1			
030(6)20	Reception Pavilion - Material Submission, Procurement, FAT and Delivery	90	90	0% 28-Feb-24	-	15-Jan-24 1 29-Jan-24 2		4	
030(6)30 030(6)40	MT Plant Building - Material Submission, Procurement, FAT and Delivery Wastewater Treatment Plant - Material Submission, Procurement, FAT and Delivery	150	180 150	0% 29-Jan-24 0% 29-Jan-24				-	
030(6)50	Water Treatment Plant Building - Material Submission, Procurement, FAT and Delivery	180	180	0% 29-Jan-24	26-Jul-24	29-Jan-24 2		0	
030(6)60	Administration Building - Material Submission, Procurement, FAT and Delivery	120	120	0% 29-Jan-24	-	28-Feb-24 2		0	
030(6)80	Elevated Driveway - Material Submission, Procurement, FAT and Delivery	180	180	0% 29-Jan-24		31-Oct-23 2			
	Curtain Wall Materials	210	210			03-Aug-24 2			
200(6D) 210(6D)	Material Submission and Approval Material & Equipment Procurement	60 120	60 120	0% 31-Dec-23 0% 29-Feb-24	28-Feb-24 27-Jun-24	03-Aug-24 0			
220(6D)	Factory Acceptance Test (FAT)	120	120	0% 30-Mar-24	27-Jul-24	01-Nov-24 2			
ite Precastin	ig of Facade Panels	523	217	14-Feb-23 A	03-Aug-24	24-Sep-23 2	20-Aug-24 1	7	
040(6D)	Procurement of Precast Concrete Wall Panel Moulding & Fabrication	205	7			24-Sep-23			Procurem
IF Substation		90	90		05-Apr-24	31-Oct-23 1	-		
3070(6D)	Precasting of Concrete Panels	60	60		06-Mar-24	31-Oct-23 2			
8080(6D) vatod Drivo W	Factory Acceptance Test (FAT)	60 90	60 90		05-Apr-24 28-Apr-24	21-Mar-24 1 23-May-24 2	-		
vated Drive W 3100	Precasting of Concrete Panels	60	60			23-May-24 2			
3110	Factory Acceptance Test (FAT)	60	60			22-Jun-24 2			
bine Hall		90	90		05-Apr-24	06-Mar-24 0	-	9	
3130	Precasting of Concrete Panels	45	45	0% 07-Jan-24	20-Feb-24	06-Mar-24 1	19-Apr-24 5	9	
3140	Factory Acceptance Test (FAT)	45	45		_	05-Apr-24 1	,	9	
3150	Delivery to Site	30	30 90	0% 07-Mar-24 07-Jan-24	05-Apr-24 05-Apr-24	05-May-24 0 03-Mar-24 3		9 6	
cess Building 3160	g Precasting of Concrete Panels	60	60		05-Apr-24				
3160	Factory Acceptance Test (FAT)	60	60	0% 07-Jan-24	21-Mar-24	18-Mar-24 1			
3180	Delivery to Site	30	30	0% 07-Mar-24	05-Apr-24	02-May-24	,		
hanical Treat	tment Plant	60	60	30-Mar-24	28-May-24	09-Jan-24 (	08-Mar-24 -8	1	
3190	Precasting of Concrete Panels	60	60		-	09-Jan-24 (			
ninistration B		90	90			25-Nov-23 2			
8250	Precasting of Concrete Panels	60	60	0% 29-Feb-24		25-Nov-23 2			
8260	Factory Acceptance Test (FAT)	60 210	60 210	0% 30-Mar-24 07-Jan-24	-	25-Dec-23 2 01-Oct-23 2			
mney 3280	Steel Claddings	210	210	07-Jan-24	-	01-Oct-23 2 01-Oct-23 2			
	ation of Steel Grating Platform for Chimney	120	120		ů.	07-Sep-23 (			
310(6F)	Prefabrication of Steel Grating Platform	60	60			07-Sep-23 (			
320(6F)	Factory Acceptance Test (FAT)	60	60	0% 30-Jan-24		07-Oct-23 (			

3-wonth Rolling Programme	(Decen
PAGE 9 OF 16	



ID	Adivity Name	Original	Remaining	Activity % Current Start	Current Finish	Late Start	Late Finish		173 Remarks	2023 Dec	ated Waste Manager
06-8330(6F)	Delivery to Site	Duration 30	Duration 30	Complete 0% 30-Mar-24	28-Apr-24	06-Dec-23	04- Jan-24	Float -115		73	
( )	pipes, Fittings and Anchor Bolts for Structures (if applicable)	90	90		30-Mar-24	18-Aug-23		58			
04-1830(6F)	Chimney (30d)	0	0	0% 31-Dec-23		22-Sep-23		-100			Chimney (30d)
04-1850(6F)	Reception Pavilion (90d)	0	0			07-Oct-23		-100			<ul> <li>Reception</li> <li>Administration Building and Viewing</li> </ul>
04-1860(6F) 04-1870(6F)	Administration Building and Viewing Gallery (90d) Elevated Drive Way and Associated Structures (30d)	0	0	0% 31-Dec-23 0% 31-Dec-23		13-Sep-23 18-Aug-23		-109 -135			<ul> <li>Administration Bunding and Viewing</li> <li>Elevated Drive Way and Associated</li> </ul>
04-1910(6F)	Vehicle Fuel Filling Station (90d)	0	0	0% 30-Mar-24		22-Dec-23		-135			
04-1920(6F)	Fuel Filling Kiosk (30d)	0	0			27-May-24		118			
nvironmental Wor	rks	419	391	01-Nov-23 A	24-Jan-25	19-Oct-23	17-Oct-24	-99			
-	y Monitoring Works	419	391	01-Nov-23 A		19-Oct-23		-99			
07-1215(M72) 07-1220	Carry out baseline Air Quality monitoring at Portion 3A (Temporary Location) Carry out baseline Air Quality monitoring at of Portion 3	365 302	32 302	91.23% 01-Nov-23 A 0% 29-Feb-24		19-Nov-23 21-Dec-23		-42 -70			
07-1220	Carry out baseline Air Quality monitoring at Portion 5	365	365	0% 26-Jan-24	24-Jan-25	19-Oct-23		-99			
laritime Works		1692	200	30-Nov-19 A	17-Jul-24	07-Dec-23	27-Jul-24	10			
Marine Construction	n	1692	200	30-Nov-19 A	17-Jul-24	07-Dec-23	27-Jul-24	10			
Phase I - Construct	tion of Perimeter Seawalls	1692	200	30-Nov-19 A	17-Jul-24	07-Dec-23	03-Jun-24	-44			
Seawall and Berth	n at DCM Area	1692	200	30-Nov-19 A	17-Jul-24	07-Dec-23	03-Jun-24	-44			
Seawall Structural W		1692	200	30-Nov-19 A		07-Dec-23		-44			
08-1115(3) Remain Works	Caisson infill, Solid ballast, toe protection, precast concrete blocksetc Laying	250	25			10-Feb-24		41			
08-1105-11(6)	Prefabrication of Precast Copping for Vertical Seawall	1012 140	200 140	10-Oct-21 A 0% 31-Dec-23		07-Dec-23 16-Jan-24		-44 16			
08-1120	Construction of Seawall and Wave Wall Extension from +3mPD to Deck Level for Seawall A	220	76	65.45% 10-Oct-21 A	-		04-Apr-24	20			۹ <del>د .</del>
08-1120-1(6)	Construction of Seawall and Wave Wall Extension from +3mPD to Deck Level for Seawall B	220	18			18-Mar-24		78			Con
08-1120-2(M55) 08-1120-4(M55)	Construction of Seawall and Wave Wall Extension from +3mPD to Deck Level for Seawall B No. C1 & C2 (Caisson A2 & / Construction of Seawall and Wave Wall Extension from +3mPD to Deck Level for Seawall B No. C73 & C73C1	60 60	24			11-May-24 09-May-24	03-Jun-24	132 130			
08-1320(6)	Construction of Rear Wall Buttress & Panel for Seawall A	180	180		17-Jul-24	07-Dec-23		-44			
Seawall at Dredgi	ng Area	160	12			30-Jan-24		30			
Remain Works		160	12	11-Jul-22 A	11-Jan-24	30-Jan-24	10-Feb-24	30			
08-1170	Construction of Seawall and Wave Wall Extension from +3mPD to Deck Level (Bay 1 to Bay 8)	160	12			30-Jan-24		30			Construction of
	tion, Breakwater and Berth Construction	1155	180	08-Feb-21 A		12-Feb-24		30			
Breakwater		1033	100	30-Apr-21 A		25-Feb-24		56			Caisson Infill, Soli
08-1295(3) Remain Works	Caisson Infill, Solid ballast, toe protection, precast concrete blocksetc Laying	200 637	10 88	95% 30-Apr-21 A 31-May-22 A		25-Feb-24 08-Mar-24		56 56			Caissoit Itilii, soii
08-1300	Construction of Caissons Extension from +3mPD to Deck Level	637	88			08-Mar-24		56			
Seawall and Berth	n at Marine Access	545	180	08-Feb-21 A		12-Feb-24	27-Jul-24	30			
08-1320(5A)	Caisson Infill, Solid ballast, toe protection, precast concrete blocksetc Laying	90	23	74.44% 08-Feb-21 A	22-Jan-24	12-Feb-24	05-Mar-24	43			
Remain Works		30	30		29-Jan-24	05-May-24		126			
08-1330(2) Seawater Intake Strue	Construction of Seawall and Wave Wall Extension from +3mPD to Deck Level	30 90	30 11		29-Jan-24	05-May-24 17-Jul-24		126 199			
08-2400(6D)	Construction of Seawater Intake	90	11					199			Construction of
Fire Boat Access		120	120	29-Feb-24				29			
08-2500(6D)	Construction of Fire Boat Access	120	120					29			
oundation Works		421			<u> </u>	, in the second	Ŭ	-23			
	iewing Gallery Bld Foundation	125		¥				-46			
	/iewing Gallery Bld Pile Caps Construction	125	20	ÿ		14-Nov-23		-46			Excavation to Pile Ca
09-1090 09-1100	Excavation to Pile Cap Formation Pile Cut-off & Capping Plate (6 Welders @ 2nr/d)	60 14	8			14-Nov-23		-46 -46			Excavation to Pile Ca
09-1110	Pile Caps Construction	90	11					-46			
Sky Deck Foundatio		44	44	U U				24			
Sky Deck Pile Cap	s Construction	44	44	30-Jan-24	14-Mar-24	23-Feb-24	06-Apr-24	24			
09-2730(M62)	Excavation to Pile Cap Formation	21	21	0% 30-Jan-24	20-Feb-24	23-Feb-24	14-Mar-24	24			
09-2740(M62)	Pile Cut-off & Capping Plate (2 Welders @ 2nr/d)	7	7	0% 20-Feb-24		17-Mar-24		26			
09-2750(M62)	Pile Caps Construction Waste Bunker & Tipping Hall Bld Foundation	30 134	30 29			08-Mar-24		24 -14			
	Pile Cap Construction	134	27					-14			
Pile Cap Stage 3 (	· ·	134	29					-14			
Process Building (Mo		134	29			17-Dec-23		-14			
09-1240	Excavation to Pile Raft Foundation Formation	120	12					-14			Excavation to
09-1250	Pile Cut-off & Capping Plate (168 nrs, 10nr/d)	120	24	80% 06-Jul-23 A	23-Jan-24	21-Dec-23	13-Jan-24	-10			
09-1260	Pile Caps and Raft Foundation Construction (60m x 24m 4set@100m2/7day)	100	25	5				-14			1
CC Equipment For		246	93								
ACC Pile Cap Cons		218	74					-123			Pile Caps Construct
09-1710 09-1710-1(6)	Pile Caps Construction (Module 1) Tie Beams Construction (Module 1 @+6.5mPD)	30 30	9	70% 02-Jul-23 A 70% 02-Jul-23 A		13-Sep-23 13-Sep-23		-109 -109			Tie Beams Constru
09-1710-1(6) 09-1710-1(M58)	Excavation to Pile Caps formation and construction (Module 2 & 3)	30	9					-109			
09-1710-2(M58)	Tie Beams & Slab Construction (Module 2 & 3 @+6.5mPD)	30	26								4
ACC Equipment St		145	93	01-Sep-23 A	01-Apr-24	13-Sep-23	30-Nov-23	-123			
09-1720	Base Slab Construction (Module 1 @+6.5mPD)	30	12			13-Sep-23		-109			Base Slab Co
09-1720-1(M58)	Base Slab Construction (Module 2 & 3 @+6.5mPD)	45 49	45								
urbine Hall Bld Fo			8			01-Sep-23					

3-Month Rolling Programme (December 2023)	
PAGE 10 OF 16	

Critical Remaining Work 🔶 ٠

Critical Milestone

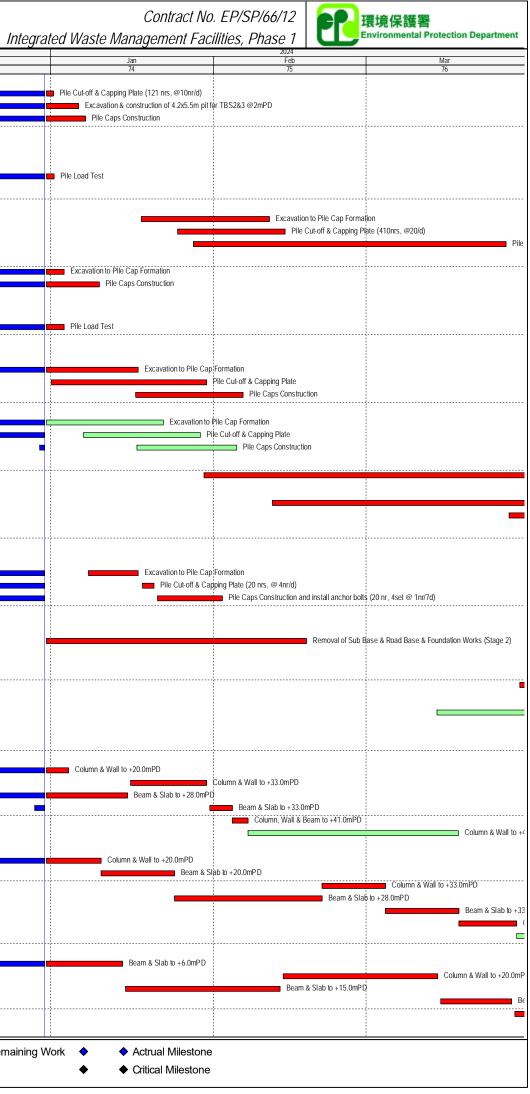
Contract No Management Faci		<b>R</b>	景境保護署 invironmental Prote	ection Department
Jan 74	2024 Feb			ar
74 ◆ Reception Pavilion (90d) ng and Viewing Gallery (90d) and Associated Structures (30d)				¹⁶
♦ F	uel Filling Kiosk (30d) Carry out baseline Air Quality m	ionitoring at Portio	h 3A (Temporary Location	• ,
Caisson in	III, Solid ballast, toe protection, p	recast concrete blo		Construction of Seawall a
Construction	and Wave Wall Extension from of Seawall and Wave Wall Exter tion of Seawall and Wave Wall E	nsion from +3mPD	vel for Seawall B to Deck Level for Seawall	B No. C1 & C2 (Caisson A.
Construction of Seawall and Wave	e Wall Extension from +3mPD to	Deck Level (Bay 1	to Bay 8)	
sson Infill, Solid ballast, toe protec	tion, precast concrete blockset	c Laying		
C	Solid ballast, toe protection, prec			
Ition to Pile Cap Formation Pile Cut-off & Capping Plate Pile Cut-off & Capping Plate				
			Pile Cap Formation e Cut-off & Capping Plate	(2 Welders @ 2nr/d) Pile Caps Construction
	h Formation Capping Plate (168 nrs, 10nr/d) Caps and Raft Foundation Cons		m 4set@100m2/7day)	
aps Construction (Module 1) eams Construction (Module 1 @+		cavation to Pile Ca	ps formation and construc	tion (Module 2 & 3) e Beams & Slab Constructi
Base Slab Construction (Module	@+6.5mPD)			
<ul> <li>Actrual Milestone</li> </ul>				

Actual Work

Keppel Seghers	Ν
吉音西格斯一派单联	분 승 경
KEPHILSUGHURS-ZHEN BLAJOIN	INENTURE

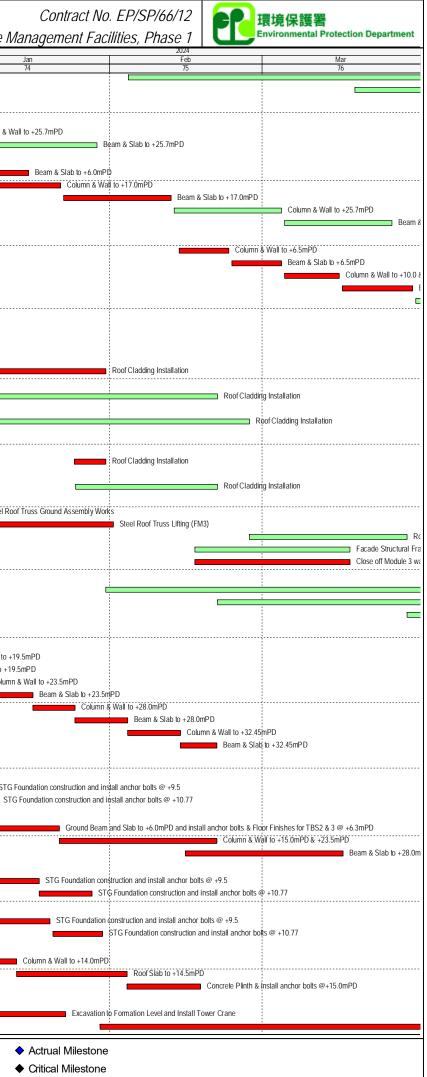
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Л	Macto	Manaa

r ID	Activity Name	Original Duration		Activity % Current Start Complete	Current Finis	h Late Start	Late Finish	Total Float	M73 Remarks	2023 Dec	Jan
TDC1 0 2		49			07-Jan-24	01-Sen-23	08-Sen-23			73	74
TBS2 & 3 09-1770-2(6G)	Pile Cut-off & Capping Plate (121 nrs, @10nr/d)	12									Pile Cut-off & Capping Plate (121)
09-1770-3(M62)	Excavation & construction of 4.2x5.5m pit for TBS2&3 @2mPD	21									Excavation & construction
09-1780	Pile Caps Construction	40	8	80% 01-Nov-23 /	07-Jan-24	01-Sep-23	08-Sep-23	-121			Pile Caps Construction
Mechanical Treatr	ment Plant & Water Treatment Plant Bld Foundation	208	88	21-Feb-23 /	27-Mar-24	24-Sep-23	02-Dec-23	-116			
Mechanical Treat	tment Plant & Water Treatment Plant Piling Works	8	2	21-Feb-23 /	01-Jan-24	17-Oct-23	18-Oct-23	-75			
Mechanical Trea	atment Plant & Water Treatment Plant (Driven H-pile)	8	2	21-Feb-23 /	01-Jan-24	17-Oct-23		-75			
09-1880	Pile Load Test	8				17-Oct-23					Pile Load Test
-	tment Plant & Water Treatment Plant Bld Pile Cap Cons										
	atment Plant Pile Cap Construction	70		18-Jan-24							
09-1920 09-1930	Excavation to Pile Cap Formation	25		0% 18-Jan-24 0% 25-Jan-24		24-Sep-23 01-Oct-23		-116 -116			
09-1930	Pile Cut-off & Capping Plate (410nrs, @20/d) Pile Caps Construction	60		0% 28-Jan-24		01-Oct-23 04-Oct-23					
	t Plant Pile Cap Construction	84			10-Jan-24						
09-1950	Excavation to Pile Cap Formation	38	4	90% 14-Oct-23 A	03-Jan-24	31-Oct-23	04-Nov-23	-60			Excavation to Pile Cap Forma
09-1970	Pile Caps Construction	60	10	83.17% 30-Oct-23 A	10-Jan-24	31-Oct-23	10-Nov-23	-60			Pile Caps Constru
Elevated Drive Wa	ay and Associated Structures Foundation	105	38	22-Aug-23 /	06-Feb-24	10-Aug-23	13-Feb-24	7			
Elevated Drive W	/ay Piling Works ( Driven H-pile)	8	4	22-Aug-23 /	03-Jan-24	24-Aug-23	27-Aug-23	-129			
09-2040(M57)	Pile Load Test	8		50% 22-Aug-23							Pile Load Test
	/ay Pile Cap Construction	38			06-Feb-24	°	13-Feb-24	7			
<u></u>	Nay RSA to RSG	38				, v					
09-2050(M57)	Excavation to Pile Cap Formation	30		40% 16-Dec-23 /		5	27-Aug-23		Update Actual Start Date		Exca
09-2060(M57) 09-2070(M57)	Pile Cut-off & Capping Plate Pile Caps Construction	30		0% 01-Jan-24 0% 17-Jan-24		11-Aug-23 27-Aug-23					
	Nay RSU to RSAF	37			05-Feb-24	-	-	9			
09-2710(M57)	Excavation to Pile Cap Formation	30		25% 06-Dec-23 /				9	Update Actual Start Date		
09-2720(M57)	Pile Cut-off & Capping Plate	30				15-Jan-24			Update Actual Start Date		
09-2730(M57)	Pile Caps Construction	21	19	10% 30-Dec-23	05-Feb-24	26-Jan-24	13-Feb-24	9	Update Actual Start Date		•
Reception Pavilio	on Foundation	75	5 75	30-Jan-24	13-Apr-24	22-Oct-23	04-Jan-24	-100			
09-2100	Formation, Compaction & Raft Foundation Construction	75		0% 30-Jan-24		22-Oct-23					
Utilities Trench Fo		225		12-Feb-24		20-Jan-24	, v				
09-2140(6)	Excavation to Utility Trench Formation & Construction of Base Sla			0% 12-Feb-24		20-Jan-24		-23			
09-2170(6) Dine Bridge Foun	Utility Trench Construction	180		0% 28-Mar-24	23-Sep-24 02-Feb-24	05-Mar-24		-23 -22			
Pipe Bridge Foun		35						-22			
Pipe Bridge C	ile Come Cometraction	33			02-Feb-24	17-Dec-23		-22			
	ile Caps Construction Excavation to Pile Cap Formation										Exca
09-2520 09-2530	Pile Cut-off & Capping Plate (20 nrs, @ 4nr/d)	21		52.37% 03-Jun-23 A		17-Dec-23 27-Dec-23					
09-2540	Pile Caps Construction and install anchor bolts (20 nr, 4set @ 1nr							-22			
Heavy Load Acce		50	50	31-Dec-23	18-Feb-24	28-Sep-23	16-Nov-23	-94			
Demolition		50	50	31-Dec-23	18-Feb-24	28-Sep-23	16-Nov-23	-94			
09-3030(6D)	Removal of Sub Base & Road Base & Foundation Works (Stage 2	) 50	50	0% 31-Dec-23	18-Feb-24	28-Sep-23	16-Nov-23	-94			
Superstructure W	lorks	455	210	17-Apr-23 A	27-Jul-24	17-Aug-23	30-Mar-25	246			
Administration &	Viewing Gallery Bld Structure	21	21	30-Mar-24	19-Apr-24	12-Dec-23	01-Jan-24	-109			
10-1000	Ground Slab to +6.0mPD	21	21	0% 30-Mar-24	19-Apr-24	12-Dec-23	01-Jan-24	-109			
Sky Deck Structu	re	38	38	14-Mar-24	21-Apr-24	07-Apr-24	14-May-24	24			
10-2310 (M55)	Construction of RC Column (15nrs @0.4/d)	38		0% 14-Mar-24	21-Apr-24	07-Apr-24	14-May-24	24			
Process Building	- Waste Bunker & Tipping Hall Bld Structure	249	139	05-Aug-23 /	17-May-24	27-Oct-23	08-Aug-24	83			
	nker Bld Structure	249	139	18-Aug-23 /	17-May-24	02-Nov-23	08-Aug-24	83			
Process Buildin	g (Module 1) Waste & Ash Bunker Bld Structure	183	79	18-Aug-23 /	18-Mar-24	21-Nov-23	26-Mar-24	8			
10-1120	Column & Wall to +20.0mPD	90		95% 18-Aug-23 /				-40			Column & Wall to +20.0mPD
10-1150	Column & Wall to +33.0mPD	15		0% 16-Jan-24				-40			Beam &
10-1160 10-1170	Beam & Slab to +28.0mPD Beam & Slab to +33.0mPD	40							Update Actual Start Date Update Actual Start Date		Dedili a
10-1180	Column, Wall & Beam to +41.0mPD	3				27-Dec-23		-40	opuale Actual Start Date		
10-1190	Column & Wall to +49.0mPD	40	-	0% 07-Feb-24		16-Feb-24		8			
	g (Module 2) Waste & Ash Bunker Bld Structure	194	119		27-Apr-24			14			
10-1230	Column & Wall to +20.0mPD	60	11	81.67% 26-Aug-23	10-Jan-24	15-Nov-23	25-Nov-23	-46			Column & Wall to
10-1250	Beam & Slab to +20.0mPD	14		0% 10-Jan-24	24-Jan-24	26-Nov-23		-46			
10-1260	Column & Wall to +33.0mPD	12		0% 21-Feb-24		07-Jan-24		-46			
10-1270 10-1280	Beam & Slab to +28.0mPD Beam & Slab to +33.0mPD	28		0% 24-Jan-24 0% 04-Mar-24		10-Dec-23 19-Jan-24	06-Jan-24 01-Feb-24	-46			
10-1290	Column, Wall & Beam to +41.0mPD	11		0% 04-Mar-24	29-Mar-24	02-Feb-24		-46			
10-1300	Column & Wall to +49.0mPD	29		0% 10-Mar-24	27-Mar-24	13-Apr-24					
	g (Module 3) Waste & Ash Bunker Bld Structure	217			15-Apr-24			-38			
10-1330	Beam & Slab to +6.0mPD	30	15	50% 28-Aug-23	14-Jan-24	02-Nov-23	16-Nov-23	-59			Beam & S
10-1340	Column & Wall to +20.0mPD	30	30	0% 14-Feb-24	14-Mar-24	07-Jan-24	05-Feb-24	-38			
10-1350	Beam & Slab to + 15.0mPD	30		0% 15-Jan-24		17-Nov-23		-59			
10-1360	Beam & Slab to +20.0mPD	14		0% 15-Mar-24				-38			
10-1380	Beam & Slab to + 28.0mPD	18		0% 29-Mar-24 04-Eeb-24	15-Apr-24 17-May-24	20-Feb-24		-38 83			
Process Buildin	g Waste & Ash Bunker Bld Structural Steel Roof	103	103	04-rep-24	17-1Vidy-24	10-Juli-24	00-Aug-24	03			
		- 2022)							Actual Work	Critical Remaining	Work <b>♦</b> Actrua
Month D	olling Programme (Decembe										



	Adivity Name		Remaining	Activity % Current Start	Current Finis	sh Late Start	Late Finish	Total M73 Re	emarks	2023	
2220 (14/2)	Frende Christian Franz Installation et Module 1	Duration	Duration	Complete	04 4 04	10. hm 24	00 Aug 24	Float		Dec 73	Jan 74
D-2330 (M63) D-2340 (M63)	Facade Structural Frame Installation at Module 1 Facade Structural Frame Installation at Module 2	60	60 60	0% 04-Feb-24 0% 18-Mar-24	04-Apr-24 17-May-24		08-Aug-24 08-Aug-24	126 83			
ping Hall Bld Str	ucture	196	97	05-Aug-23 A	05-Apr-24	27-Oct-23	25-May-24	50			
• •	Module 1) Tipping Hall Bld Structure	63	30		29-Jan-24		06-Apr-24	68			
)-1460 )-1470	Column & Wall to +25.7mPD Beam & Slab to +25.7mPD	60	6 30	90% 14-Oct-23 A 50% 14-Oct-23 A			13-Mar-24 06-Apr-24	68 68			Column & Wall to +25
	Module 2) Tipping Hall Bld Structure	185	86		25-Mar-24	_	25-May-24	61			
)-1480	Beam & Slab to +6.0mPD	21	17	19.05% 05-Aug-23 A	16-Jan-24	27-Oct-23	12-Nov-23	-65			Be
)-1490 )-1500	Column & Wall to +17.0mPD Beam & Slab to +17.0mPD	21	23 21	0% 16-Nov-23 A 0% 23-Jan-24	22-Jan-24 12-Feb-24		18-Nov-23 09-Dec-23	-65			
)-1510	Column & Wall to +25.7mPD	21	21	0% 23-Jaii-24	04-Mar-24		09-Dec-23 04-May-24	61			
)-1520	Beam & Slab to +25.7mPD	21	21	0% 05-Mar-24		05-May-24	25-May-24	61			
υ.	Module 3) WWTP Structure	52	52	14-Feb-24		21-Dec-23		9			
)- 3020(6F) )- 3030(6F)	Column & Wall to +6.5mPD Beam & Slab to +6.5mPD	10	10 10	0% 14-Feb-24 0% 24-Feb-24	23-Feb-24 04-Mar-24	21-Dec-23 31-Dec-23		-55			
)-3060(6F)	Column & Wall to +10.0 & 12.5mPD	11	11	0% 05-Mar-24	15-Mar-24			-55			
)-3070(6F)	Beam & Slab to + 10.0 & 12.5mPD	14	14	0% 16-Mar-24		21-Jan-24		-55			
)-3070-1(M63)	Column & Wall to +17.0mPD soller & Flue Gas Treatment Bld Structure	394	7 149	0% 30-Mar-24 17-Apr-23 A	05-Apr-24	08-Apr-24 23-Dec-23		9 60			
el Structure		334	89		-	23-Dec-23		60			
biler Building Ste	el Structure	328	59	·		25-Dec-23		29			
rocess Building (Mod	Jule 1) Steel Structure Erection	60	31	5		25-Dec-23		-5			
IO-1640	Roof Cladding Installation	60	31	5			_	-5			
rocess Building (Mod 10-1680	dule 2) Steel Structure Erection Roof Cladding Installation	60	53 53	25-Oct-23 A 12% 25-Oct-23 A		29-Jan-24 29-Jan-24		29 29		F	
	Jule 3) Process Building Steel Structure Erection	60	59			29-Jan-24		29			
0-1720	Roof Cladding Installation	60	59	2% 12-Dec-23 A				29			<u></u>
	t Bld Steel Structure	249	89	· · ·		23-Dec-23	-	60 E			
lo-1760	dule 1) Steel Structure Erection Roof Cladding Installation	30	6 6	03-Oct-23 A 80% 03-Oct-23 A			25-Jan-24 25-Jan-24	-5			
rocess Building (Moo	Jule 2) Steel Structure Erection	30	27			01-May-24		96			
0-1800	Roof Cladding Installation	30	27	10% 29-Nov-23 A	_	,		96			
lo-1820	dule 3) Steel Structure Erection Steel Roof Truss Ground Assembly Works	249	89 8			23-Dec-23 23-Dec-23	26-Apr-24 30-Dec-23	-8		<b></b>	Steel Roof Truss
0-1830	Steel Roof Truss Lifting (FM3)	25	25	0% 08-Jan-24	01-Feb-24	31-Dec-23		-8 Update	eOD		
0-1840	Roof Cladding Installation	30	30	0% 27-Feb-24		28-Mar-24		29			
0-1900 0-1900 1(M68)	Facade Structural Frame Installation at Module 3 Close off Module 3 wall and erect support for Prefab 3 (C3 & D2)	30	30 30	0% 17-Feb-24 0% 17-Feb-24		28-Mar-24 31-Dec-23	· ·	-48			
= 、 ,	ternal Partition Wall and Staircase	118	118	31-Jan-24	_	28-Feb-24	_	60			
1850	RC Partition and Staircase at Module 1	60	60	0% 31-Jan-24	31-Mar-24	28-Feb-24	27-Apr-24	28			
-1860 -1870	RC Partition and Staircase at Module 2 RC Partition and Staircase at Module 3	60	60 60	0% 21-Feb-24 0% 28-Mar-24	21-Apr-24	28-May-24 27-Apr-24		96 29			
bine Hall Bld Stru		228	77		,	17-Aug-23		-62			
bine Hall Electric		84	53			23-Nov-23		-38			
-1940	Column & Wall to +19.5mPD	11	1	90% 24-Nov-23 A	01-Jan-24	23-Nov-23	24-Nov-23	-38			Column & Wall to +19.5mPD
1950	Beam & Slab to +19.5mPD	8	0	95% 10-Dec-23 A			24-Nov-23	· ·	e Actual Start Date		Beam & Slab to +19.5mPD Column & Wall to
-1960 -1970	Column & Wall to +23.5mPD Beam & Slab to +23.5mPD	9	9	0% 01-Jan-24 0% 08-Jan-24	08-Jan-24 17-Jan-24		01-Dec-23 10-Dec-23	-38			
1980	Column & Wall to +28.0mPD	8	8	0% 17-Jan-24	25-Jan-24		18-Dec-23	-38			
1990	Beam & Slab to +28.0mPD	10	10	0% 25-Jan-24	04-Feb-24		28-Dec-23	-38			
-2070(M64) -2080(M64)	Column & Wall to +32.45mPD Beam & Slab to +32.45mPD	10	10	0% 04-Feb-24 0% 14-Feb-24	14-Feb-24 21-Feb-24		07-Jan-24 14-Jan-24	-38			
bine Hall TBS1		42	11		10-Jan-24		03-Nov-23	-68			
G Foundation (P	PC1)	42	11	25-Jul-23 A	10-Jan-24	24-Oct-23	03-Nov-23	-68			
)-1990-1(M58)	STG Foundation construction and install anchor bolts @ +9.5	7	10				03-Nov-23	-67			STG Foundati
)-1990-2(M58)	STG Foundation construction and install anchor bolts @ +10.77	3	11 77	95% 10-Aug-23 A	10-Jan-24 16-Mar-24		03-Nov-23 03-Dec-23	-68 -104			STG Found
r <mark>bine Hall TBS2 &amp;</mark> 2000	x 3 Ground Beam and Slab to +6.0mPD and install anchor bolts & Floor Finishes for TBS2 & 3 @ +6.3mPD	30	23	25% 10-Oct-23 A			03-Dec-23 08-Sep-23	-136			
2010	Column & Wall to +15.0mPD & +23.5mPD	30	30	0% 22-Jan-24	21-Feb-24			-136			
2020	Beam & Slab to +28.0mPD	30	30	0% 15-Feb-24		03-Oct-23		-136			
G Foundation (P		29	29		28-Jan-24		03-Nov-23	-86			
)- 1990-3(M58) )- 1990-4(M58)	STG Foundation construction and install anchor bolts @ +9.5 STG Foundation construction and install anchor bolts @ +10.77	21	19 10	10% 10-Dec-23 A 0% 18-Jan-24	18-Jan-24 28-Jan-24		24-Oct-23 03-Nov-23	-86 Update	e Actual Start Date		
G Foundation (P		31	31	31-Dec-23		03-Nov-23		-58			
)-1990-5(M58)	STG Foundation construction and install anchor bolts @ +9.5	21	21	0% 31-Dec-23	20-Jan-24		23-Nov-23	-58		r	
)-1990-6(M58)	STG Foundation construction and install anchor bolts @ +10.77	10	10	0% 21-Jan-24	30-Jan-24		03-Dec-23	-58			
npressor & CCCV		49	49 14		18-Feb-24		02-Dec-23	-77		r	Colur
2040 2050	Column & Wall to +14.0mPD Roof Slab to +14.5mPD	21	14 21	32% 01-Dec-23 A 0% 14-Jan-24	04-Feb-24		28-Oct-23 18-Nov-23	-77			
2210	Concrete Plinth & install anchor bolts @+15.0mPD	14	14	0% 04-Feb-24	18-Feb-24		02-Dec-23	-77			
nney Structure		105	105			28-Sep-23		-100			
2059	Excavation to Formation Level and Install Tower Crane	60	24	60% 04-Dec-23 A	122 Jan 24	28-Sep-23	11 Oct 12	04 Undate	e Actual Start Date	r in the second s	

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		Duration	Remaining Duration		Guiterit Tillis	n Late Start	Late Finish	Float	3 Remarks	2023 Dec	Jan
chanical Treatme	Int Plant Bld Structure	21	21		17-Apr-24	03-Dec-23	23-Dec-23	-116		73	74
-2090	Ground Slab @+6.5mPD	21	21		17-Apr-24	03-Dec-23	23-Dec-23	-116			
iter Treatment Pla		102	102		11-Apr-24			-60			
-2310(6F) -2320(6F)	Ground Slab @+6.5mPD Column & Wall to +13.5mPD	21	18		18-Jan-24 08-Feb-24	31-Oct-23 19-Nov-23		-60 -60			
-2330(6F)	1/F Slab @+13.5mPD	21	21			10-Dec-23		-60			
-2340(6F)	Column & Wall to +17.5mPD	21	21			31-Dec-23		-60			
-2350(6F) MF Substation St	2/F Slab @+17.5mPD	21	21		11-Apr-24 02-Jan-24	21-Jan-24 28-Oct-23		-60 -63			
-2200	Parapet and Structures above +15.0mPD	21	2						date Actual Start Date		Parapet and Structures a
vated Drive Way	and Associated Structures	92	92			17-Sep-23		7			
evated Drive Way	RSA to RSG (42.8m)	90	90	07-Feb-24	06-May-24	17-Sep-23	15-Dec-23	-143			
0-2210(M57)	G/F Base Slab Wall & Column to +12.5mPD Mezzanine Level	45	45			17-Sep-23		-143			
0-2220(M57) evated Drive Way	vali & Column to +12.5mPD Mezzanine Level	45 90	45 90		-	01-Nov-23 14-Feb-24		-143 9			
0-2360(M57)	G/F Base Slab	45	45	0% 05-Feb-24		14-Feb-24	-	9			,
0-2370(M57)	Wall & Column to +13mPD Mezzanine Level	45	45		,	30-Mar-24	-	9			
ebridge Structure	e	91	91			30-Jan-24	,				
peRack	Fraction of Dina Pack 2 (Dina Dack D) to ACC # (2)	10	10			30-Jan-24		-48			
0-2340(6) pe Bridge B	Erection of Pipe Rack 3 (Pipe Rack D2 to ACC & C3)	10 90	10 90	1.1.1 1.1.1 1.1.1 1.1.1 1.1.1 1.1.1 1.1.1 1.1.1 1.1.1 1.1.1 1.1.1 1.1.1 1.1.1 1.1.1 1.1.1 1.1.1 1.1.1 1.1.1 1.1		30-Jan-24 24-Feb-24		-48 -24			
D-2300-1(6D)	Erection of Pipe bridge B1 on the Roof of Turbine Hall	90	90			24-Feb-24					
ssel Offloading Po	· · · ·	120	120	30-Mar-24		01-Dec-24	5				
-2410(6D)	Construction of Vessel Offloading Point	120	120			01-Dec-24					
C Yard		100	100			09-Oct-23					
-2000 -2040	Delivery and Erection of ACC Steel Structure & Steel Structure Support of Condensate Tank (Module 1) Delivery and Erection of ACC Steel Structure & Steel Structure Support of Condensate Tank (Module 2)	45	45 45			09-Oct-23 06-Nov-23					
	ers Works & Finishes	272	253		08-Sep-24						
ocess Building - V	Vaste Bunker & Tipping Hall Bld ABWF Works	250	250	20-Nov-23 A	05-Sep-24	18-Feb-24	24-Oct-24	49			
-1060	Door, Roller Shutter, Windows and Louvers Installation	250	250	0% 31-Dec-23	05-Sep-24	18-Feb-24	24-Oct-24	49			
-1080	Internal Wall and Floor Finishes	180	178			30-Mar-24		61			
-1090	False ceiling and Raise Floor installation 3oiler & Flue Gas Bld ABWF Works	180 253	180 253		-	28-Apr-24 08-Apr-24		61 46			
-1120	Metal Railings, Staircase, Platforms & Gratings Installations	200	200			08-Apr-24		46			
-1130	Internal Wall and Floor Finishes	200	200		17-Jul-24	08-Apr-24		99			
rbine Hall Bld AB	WF Works	137	137	09-Dec-23 A	06-Jul-24	22-May-24	30-Mar-25	267			
ectrical Bld ABW		124	124		06-Jul-24	27-Jul-24		267			
1-1160 1-1170	Metal Railings, Platforms, Gratings, Cable trench covers Installations Internal Wall and Floor Finishes	120 90	120					267			
urbine Hall ABWF		52	52		_	22-May-24		91			
1-1540-1(M63)	Facade Structural Frame Erection	52	52	0% 21-Feb-24	13-Apr-24	22-May-24	12-Jul-24	91			
MF Substation AE		174	96	· · · ·	04-Apr-24			300			
-1340 -1350	Door, Roller Shutter, Windows and Louvers Installation Metal Railings, Platforms, Gratings, Cable trench covers Installations	90	89 89			_		307 -78			
-1360	Internal Wall and Floor Finishes	90	76			_		-78			
-1370	False ceiling and Raise Floor installation	90	77			-		-78			
-1380 -1560-1(M63)	External Finishes and Roof Waterproofing Facade Structural Frame Installation	86	86 64		· ·	31-Oct-23 16-Apr-24		-71 107			
Iding Services Ir		342	270		25-Sep-24			98			
<u>~</u>	Vaste Bunker & Tipping Hall Bld BS Works	270	270	31-Dec-23	25-Sep-24	14-Feb-24	25-Dec-24	91			
-1080	Fire Service System	180	180	0% 31-Dec-23	27-Jun-24	14-Feb-24	11-Aug-24	45			
-1090	Electrical and Lighting System	180	180			29-Jun-24		153			
-1100 Dcess Building - E	Security, Surveillance & Communication System  Soiler & Flue Gas Bld BS Works	180 232	180 188		25-Sep-24 06-Jul-24	29-Jun-24 04-Mar-24		91 180			
-1110	Plumbing & Drainage System	180	169			16-Jul-24		199			
-1120	MVAC System	180	162			09-Apr-24		100			
-1130	Fire Service System	180	160			04-Mar-24	0	65			
-1140 -1580(6E)	Electrical and Lighting System Earthing and Lightning Protection System	180	158 119			13-Mar-24 22-May-24	0	74 74			
WF Substation BS		200	113	,	21-Apr-24						
-1470	Plumbing & Drainage System	120	113								
1480	MVAC System	120 90	108 79					154 -135			
-1490 -1500	Fire Service System Electrical and Lighting System	90	106					-135 255			
-1510	Security, Surveillance & Communication System	90	79								
C Equipment Stru		72	72		· · · ·	20-Jul-24		149			
-1580(5a)	Plumbing & Drainage System	60	60		,		17-Sep-24	124			
-1600(5a) -1610(5a)	Fire Service System (Equipment/Appliance) Electrical and Lighting System	60 60	60 60			26-Aug-24 19-Aug-24		161 142			
cess Equipment		292	231		18-Aug-24	°					

3-Month Rolling	Programme	(December 2023)
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Critical Remaining Work 🔶

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	. EP/SP/66/12 ilities, Phase 1 2024	P	景境保護署 nvironmental Protection Department
	Feb 75		Mar 76
	10		
und Slab @+6.5m	PD		
	Column & Wall to		
			1/F Slab @+13.5mPD
		•	Column & Wall
5.0mPD			
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			G/F Base Slab
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			Facade Structural Frame Installation
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Activity ID	Adivity Name	Original Duration	Remaining Duration	Activity % Complet		Current Finis	h Late Start	Late Finish	Total Float	M73 Remarks	2023 Dec	Jan
Equipment, Piping	g and Instrument Installation and Connection Works	200	169		15-Nov-23 A	16-Jun-24	04-Nov-23	29-Jun-24	13		73	74
Process Building		110	66		15-Nov-23 A	01-May-24	25-Apr-24	29-Jun-24	59			
12-3010(6F)	Piping Installation Works	90	36	60%	% 15-Nov-23 A	01-Apr-24	25-Apr-24	30-May-24	59			
12-3020(6F)	Pipe Testing	60	60	0%	% 02-Mar-24	-	-		59			
Process Building		90		100		11-May-24			14			
12-3040(6F) 12-3050(6F)	Embedded Piping Installation Piping Installation Works	60 90			% 02-Jan-24 A % 02-Jan-24 A			· ·		Update Actual Start Date Update Actual Start Date	_	
12-3030(01) 12-3075(M71)	Equipment Installation at Basin Area at +6.5mPD	60			% 05-Mar-24				-65		_	
Process Building	g (WWTP)	121	90		27-Nov-23 A	29-Mar-24	04-Nov-23	06-May-24	38			
12-3160(6F)	Piping Installation Works	60	18	70%	% 27-Nov-23 A	17-Jan-24	04-Nov-23	22-Nov-23	-56			Piping Ins
12-3170(6F)	Pipe Testing	60			% 31-Dec-23	28-Feb-24			-52		_	
12-3180(6F)	Piping Insulation Works Equipment (Module 1)	60 90	60 90	0%	% 30-Jan-24 18-Feb-24	29-Mar-24 18-May-24	08-Mar-24 01-Apr-24		38 42			
12-4000(6G_R1)	Deliver and installation of Ash Treatment Equipments	90		09	% 18-Feb-24		01-Apr-24		42			
	Equipment (Module 2)	90	90		18-Mar-24	-	30-Mar-24		11			
12-4010(6G_R1)	Deliver and installation of Ash Treatment Equipments	90	90	09	% 18-Mar-24	16-Jun-24	30-Mar-24	27-Jun-24	11			
Process Building	(Cranes and Shredder)	112	112		15-Feb-24	05-Jun-24	20-Jan-24	21-Dec-24	199			
Process Building	g (Module 1)	85	85		15-Feb-24	09-May-24	20-Jan-24	21-Dec-24	226			
13-1000	Waste Crane 1 Installation @+41.6mPD	70			% 28-Feb-24	,	07-May-24		68			
13-1000-1(6) 13-1000-2(6)	Ash Crane 1 Installation @+15.3mPD Shredder 1 Installation	70 40	70 40		% 16-Feb-24* % 28-Feb-24		-	04-Aug-24 28-Feb-24	101 -40		-	
13-1000-3(6)	Hoist Installation	70			% 01-Mar-24	-	06-Jun-24		97		1	
13-1000-5(6B)	EOTC & Monorail Hoist System installation in Waste Crane Control Room (+33.5 & 36.5mPD)	70			% 28-Feb-24	,	06-Jul-24	•	128			
13-1000-6(6B)	EOTC & Monorail Hoist System installation in Ash Crane Control Room (+15.8mPD & +19.9mPD)	70			% 15-Feb-24*	25-Apr-24	-	-	102			
13-1000-7(6B) 13-1000-8(6B)	EOTC & Monorail Hoist System installation in Mechanical Shredder Area +28.5mPD Monorail Hoist System installation in CCR Electrical Switch room +13.75mPD	70 60			% 25-Feb-24 % 03-Mar-24	-		14-Aug-24 21-Dec-24	101 233		_	
13-1000-9(6B)	Monorail Hoist System installation in CCR Electrical Switch room +23mPD	60	60		% 03-Mar-24	,		21-Dec-24				
13-1010(6B)	EOTC Hoist System installation in Main Workshop & Store +15.3mPD	60	60	0%	% 03-Mar-24	02-May-24			94		_	
Process Building		84	84		14-Mar-24	05-Jun-24	27-May-24	04-Aug-24	60			
13-1004-1(M71)	Ash Crane 2 Installation @+15.3mPD	70			% 14-Mar-24*	22-May-24		•	74		_	
13-1004-6(M71) Process Building	EOTC & Monorail Hoist System installation in Ash Crane Control Room (+15.8mPD & +19.9mPD)	70 191		0%	% 28-Mar-24* 27-Nov-23 A	05-Jun-24 01-Aug-24			60 -56			
13-1010-1(6)	WWTP Piping and instrument installation	145		359	% 27-Nov-23 A	-			-56			
13-1010-2(6)	WWTP Electrical Equipment installation & Cable pulling and termination	145				01-Aug-24		-	-56		_	
WWTP Mechanic	cal equipment installation	60	60		19-Mar-24	17-May-24	07-Apr-24	05-Jun-24	19			
13-1010-5(6B)	EOTC Hoist System installation in WWTP +6.5	60		0%	% 19-Mar-24	17-May-24			19			
	(Central Control System Installation)	145			18-Mar-24	-	27-Mar-24	-	8			
13-1010-3(6B)	Mechanical equipment installation (Control Room 2 +36.5mPD)	145	145	0%	% 18-Mar-24	10-Aug-24	27-Mar-24	18-Aug-24		Change Lag from Predecessor 10-1190 from FS-34 to FS0		
13-1980	Control Systems Installation at CCR	90	90	0%	% 18-Mar-24	16-Jun-24	07-Apr-24	05-Jul-24	19	Change Lag from Predecessor 10-1190	-	
12 1000	Cable leving and Termination	00	00	00	V 10 Mar 24	16 km 24	07 Apr 24	05 101 24	10	from FS-50 to FS0		
13-1990	Cable laying and Termination	90	90	07	% 18-Mar-24	16-Jun-24	07-Apr-24	UD-JUI-24		Change Lag from Predecessor 10-1190 from FS-50 to FS0		
13-2160(6B)	DCS Installation	90	90	0%	% 18-Mar-24	16-Jun-24	07-Apr-24	05-Jul-24		Change Lag from Predecessor 10-1190 from ES-50 to ES0		
13-2210(6B)	CMMS Installation	90	90	09	% 18-Mar-24	16-Jun-24	07-Apr-24	05. Jul. 24		Change Lag from Predecessor 10-1190	_	
13 22 10(05)		,0	,0	07		10 501124	07710124	00 501 24		from FS-50 to FS0		
13-2260(6B)	IDMS installation	90	90	0%	% 18-Mar-24	16-Jun-24	07-Apr-24	05-Jul-24		Change Lag from Predecessor 10-1190 from FS-50 to FS0		
13-2270(6B)	OMS Installation	90	90	09	% 18-Mar-24	16-Jun-24	07-Apr-24	05-Jul-24		Change Lag from Predecessor 10-1190	_	
										from FS-50 to FS0		
Process Building		145			18-Feb-24	12-Jul-24		04-Aug-24	23			
13-1000-4(6B) 13-1010-4(6B)	Waste Crane Switch room E&I Equipment installation @+29.5mPd, inclusive of Control Chair and Junction box in WCCR Mechanical equipment installation (Switch Room +28.25mPD)	60 145			% 28-Feb-24	28-Apr-24 12-Jul-24		04-Aug-24	98 17			
13-2280(6B)	Transformer @ Process Bldg. switch room x4 Nos. @+13.3 mPD	90			% 18-Feb-24 % 29-Mar-24		07-Mar-24 01-May-24	29-Jul-24 29-Jul-24	33		_	
13-2280-1(6B)	LVSG 1A/1B and 2A/2B (below Toilet/Server Room - Process building Switch room)	90			% 19-Mar-24	17-Jun-24			42			
13-2280-2(6B)	UPS @ Process Building Switch room and Battery room	90		0%		17-Jun-24			42			
	- Boiler House & Flue Gas Treatment BId Process Equipment Installation	268			, v	24-Jul-24			5			
	(Installation TPU Module)	268			° .	24-Jul-24						
TPU Train 1		254		44.000	, v	10-Jul-24			-83			
13-1040 13-1050	Boiler Condition Check and Repair Remaining Equipment Installation at GL	70 120			% 15-Oct-23 A % 15-Aug-23 A			· ·	59 -159			
13-1060	Pipe Connection to FGT Unit	120			% 15-Nov-23 A				-159			
13-1070	Pipe Insulation Works	120				06-Jul-24		29-Jan-24	-159			
13-1080	Electrical instrument and Cabling Works	120				10-Jul-24		29-Jan-24	-163		-	
13-1090 TPU Train 2	Boiler Pressure Test	15 267		09		23-Mar-24 24-Jul-24			26 -96			
13-1130	Boiler Condition Check and Repair	70		44 209	15-Aug-23 A % 15-Oct-23 A				-90			
13-1140	Remaining Equipment Installation at GL	120			% 15-Aug-23 A							
13-1150	Pipe Connection to FGT Unit	109			% 02-Jan-24 A							
13-1160	Pipe Insulation Works	120				19-Jul-24		29-Jan-24	-172			
13-1170 13-1180	Electrical instrument and Cabling Works Boiler Pressure Test	120 15	-		% 26-Mar-24 % 21-Mar-24	24-Jul-24 05-Apr-24		29-Jan-24 18-Apr-24	-176 13		-	
TPU Train 3		238		07		24-Jul-24		-				
								, j = 1				

3-Month Rolling Programme (December 2023) PAGE 14 OF 16

Critical Remaining Work 🔶 ♦ ♦ Milestone

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	o. EP/SP/66/12 cilities, Phase 1	環境保護署 Environmental Protection I	Departmen
Jan	2024 Feb	Mar	
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Piping Installation Wo	rks		
	i.	Pipe Testing	
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	Boiler Condition (	лескала керал	
Re	maining Equipment Installation a		FOT · · ·
	1	Pipe Connection to I	FGI Unit
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	Boiler Condition (	neck and Repair	
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	Boiler Condition C	heck and Repair Remaining Equipment Ins	
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	Adivity Name	Original	Remaining		Current Finis	Late Start	Late Finish		M73 Remarks	2023	rated Waste Mar
1000		Duration	Duration		10.14	00.14	00.14	Float		Dec 73	Ja 7/
-1220 -1230	Boiler Condition Check and Repair Remaining Equipment Installation at GL	71	71 66		10-Mar-24 05-Mar-24	20-Mar-24 08-Jul-23	29-May-24 11-Sep-23	80 -176			
-1240	Pipe Connection to FGT Unit	121	121	0% 12-Jan-24*	11-May-24		05-Nov-23	-188			
-1260	Electrical instrument and Cabling Works	120	120	0% 27-Mar-24	24-Jul-24		14-Mar-24	-132			
U Train 4		237	206	27-Nov-23 A	23-Jul-24	09-Jul-23	29-May-24	-55			
-1310	Boiler Condition Check and Repair	70	70	0% 31-Dec-23	09-Mar-24	21-Mar-24	29-May-24	81			L
-1320	Remaining Equipment Installation at GL	120	65		04-Mar-24	09-Jul-23	11-Sep-23	-175			
-1330	Pipe Connection to FGT Unit	120	120		10-May-24		05-Nov-23	-187			
1350	Electrical instrument and Cabling Works	120	120		23-Jul-24		14-Mar-24	-131			
U Train 5	Deiles Fired Desilies by CDMT (TDH Tesis F)		154		09-Jun-24	03-Jul-23	29-May-24	-11			♦ Boiler Final
-1480 -1485(M63)-1	Boiler Final Position by SPMT (TPU Train 5) Removal of Temporary Steel from Prefab from TPU-5	0	0		07-Jan-24 17-Jan-24	04-Jul-23	03-Jul-23 13-Jul-23	-188	Update OD		
-1485(M63)-1	TPU-5 Welding to Base Plate	20	20		06-Feb-24	14-Jul-23	02-Aug-23	-188	· · · · · · · · · · · · · · · · · · ·		
1490	Boiler Condition Check and Repair	70	70		17-Mar-24		29-May-24	73			
1500	Remaining Equipment Installation at GL	120	120	0% 07-Feb-24	05-Jun-24	03-Aug-23	30-Nov-23	-188			
1510	Pipe Connection to FGT Unit	120	120	0% 11-Feb-24	09-Jun-24	02-Sep-23	30-Dec-23	-162			
J Train 6		158	158	31-Dec-23	05-Jun-24	04-Jul-23	29-May-24	-7			
1395(M63)-1	Removal of Temporary Steel from Prefab from TPU-6	10	10		17-Jan-24	04-Jul-23	13-Jul-23		Update OD		
1395(M63)-2	TPU-6 Welding to Base Plate	20	20		06-Feb-24	14-Jul-23	02-Aug-23	-188			
1400	Boiler Condition Check and Repair	70	70		09-Mar-24		29-May-24	81			
1410 1420	Remaining Equipment Installation at GL Pipe Connection to FGT Unit	120	120 120		05-Jun-24 05-Jun-24		30-Nov-23 30-Dec-23	-188 -158			
		224	120				29-Jul-24	-136			
Ű	(Installation of Flue Gas Module)	224	163	9		23-Sep-23		49			
C Train 1 1580	FGC Unit Condition Check and Repair	70	70	<b>.</b>	09-Mar-24	23-3ep-23 21-Feb-24		49 52			
1580	Remaining Equipment Installation at GL	90	39				30-Apr-24 31-Oct-23	-99			
1600	Pipe Connection Works to TPU and Pipebridge	90	90	5	07-May-24		-	-99			
1610	Pipe Insulation Works	90	90		07-Jun-24	01-May-24	-	52			
1620	Electrical instrument and Cabling Works	90	90	0% 13-Mar-24	10-Jun-24	01-Dec-23	28-Feb-24	-103			
C Train 2		224	163	15-Aug-23 A	10-Jun-24	10-Aug-23	29-Jul-24	49			
1650	FGC Unit Condition Check and Repair	70	70	0% 31-Dec-23	09-Mar-24	21-Feb-24	30-Apr-24	52			L <mark>i</mark>
1655(6A)	Installation 4 nos. of Transformers for Process Module 1	14	14		12-Mar-24		01-Oct-23	-163			
1660	Remaining Equipment Installation at GL	90	39	5		-	17-Sep-23	-143			
1670 1680	Pipe Connection Works to TPU and Pipebridge Pipe Insulation Works	90	90 90			01-Nov-23 01-May-24	-	-99 52			
1690	Electrical instrument and Cabling Works	90	90 90		10-Jun-24		29-Jul-24 28-Feb-24	-103			
C Train 3		159	159				28-Apr-24	-40			
1720	FGC Unit Condition Check and Repair	70	70		09-Mar-24		28-Apr-24	50			
1730	Remaining Equipment Installation at GL	90	69					-84			
1740	Pipe Connection Works to TPU and Pipebridge	90	90	0% 09-Mar-24	07-Jun-24	16-Dec-23	15-Mar-24	-84			
C Train 4		160	160	31-Dec-23 A	07-Jun-24	24-Aug-23	28-Apr-24	-40			
1790	FGC Unit Condition Check and Repair	70	70	0% 31-Dec-23	09-Mar-24	19-Feb-24	28-Apr-24	50			
1795(6A)	Installation 4 nos. of Transformers for Process Module 2	14	14				15-Nov-23	-129			
1800	Remaining Equipment Installation at GL	90	70			-		-129			
1810	Pipe Connection Works to TPU and Pipebridge	90	90		07-Jun-24			-85			
C Train 5	Else Car First Desider to CDMT (COC Tasis F)		90			28-Aug-23	28-May-24	22			
1850 1855(M63)-1	Flue Gas Final Position by SPMT (FGC Train 5) Removal of Temporary Steel from Prefab from FGC-5	0	0		06-Feb-24	25-Dec 22	28-Aug-23 07-Jan-24	-162 -48			
1855(M63)-1 1855(M63)-2	FGC-5 Welding to Base Plate	14	14				07-Jan-24 14-Apr-24	-48			
1860	FGC Unit Condition Check and Repair	70	70				28-May-24	42			
1870	Remaining Equipment Installation at GL	90	90		· ·		28-Feb-24	-68			
C Train 6		90	90	10-Feb-24	10-May-24	01-Sep-23	28-May-24	18			
1920	Flue Gas Final Position by SPMT (FGC Train 6)	0	0	0%	10-Feb-24		01-Sep-23	-162			
1925(M63)-1	Removal of Temporary Steel from Prefab from FGC-6	14	14		24-Feb-24			-48			
925(M63)-2	FGC-6 Welding to Base Plate	14	14				28-Apr-24	36			
930	FGC Unit Condition Check and Repair	70	70		22-Apr-24		28-May-24	36			
940 Equipmont In	Remaining Equipment Installation at GL	90 114	90 114		10-May-24 02-Jul-24		16-Dec-23	-146 27			
Equipment In		114	114			23-Nov-23		27			
Equipment 1					02-Jul-24						
000-1(M63) 010	Condensate Tank & Equipments Delivery and installation (Module 1) Piping and Instrument Installation and Connection Works	30	30 100		09-Apr-24 18-Jun-24		22-Dec-23 01-Mar-24	-109 -109			
20	Pipe Insulation Works	100	100		02-Jul-24	23-110V-23 21-Apr-24		27			
)30	Cable Laying and Termination Works	100	100		18-Jun-24		01-Mar-24	-109			
	Equipment Installation	155	155				21-Dec-24	190			
	lule 1 Installation	139	139	12-Jan-24	30-May-24	07-Oct-23	29-Jul-24	60			
120	STG Module 1 Installation	22	22		-		25-Nov-23	-72			
120-1(11)	TBS Tower 1 Delivery	0	0		12-Jan-24		07-Oct-23	-97			♦ TE
120-1(6H)	TBS Tower 1 Installation	7	7	0% 15-Jan-24	21-Jan-24	26-Dec-23	01-Jan-24	-20			
130	Piping and Instrument Installation and Connection Works	70	70	0% 21-Feb-24	30-Apr-24	21-Feb-24	30-Apr-24	0			
130-1(6E)	STG & TBS Piping hydrostatic test	7	7		27-Feb-24		· ·	63			
140	Turbine Hall Piping Insulation Works	90	90	0% 02-Mar-24	,	01-May-24	_	60			
150	Turbine Electrical installation Works	120	120	0% 29-Jan-24	27 May 24	02 Jan 24	30-Apr-24	-27			- 1 P

3-Month Rolling Programme (December 2023)	Actual Work	Critical Remaining Work	<b></b>
PAGE 15 OF 16	Remaining Work	♦ ♦ Milestone	•

Contract No. Management Faci	. EP/SP/66/12 ilities, Phase 1 2024	P	環境保護 Invironment	署 al Protection Department
Jan	Feb			Mar
74	75		Rema	76 Boiler Condition Check and Repai ining Equipment Installation at GL
				Boiler Condition Check and Repair ing Equipment Installation at GL
inal Position by SPMT (TPU Train Removal of Temporary	15) Steel from Prefab from TPU-5 TPU-5 Welding to B	Base Plate		Boiler Condition Chec
Removal of Temporary	Steel from Prefab from TPU-6 TPU-6 Welding to B	Base Plate		Boiler Condition Check and Repair
			:	
	Remaining Equip	ment Installation at	i.	FGC Unit Condition Check and Rep
	5 1 1			
	Remaining Equip	ment installation at		FGC Unit Condition Check and Rep Installation 4 nos. of Transform
				FGC Unit Condition Check and Rep Remaining Equipment Installation at (
				FGC Unit Condition Check and Rep Installation Remaining Equipment Installation a
	◆ Flue Gas Final Pos		al of Temporary	Steel from Prefab from FGC-5 FGC-5 Welding to Base Plate
	◆ Flue Gas Fi	nal Position by SPN	al of Temporary	Steel from Prefab from FGC-6
TBS Tower 1 Delivery	STG Module 1 Instal	lation		
TBS Tower 1 Ins			G & TBS Piping	j hydrostatic test ule 1 @+22.247mPd
Actrual Milestone				

Critical Milestone

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KEPHIL SUG	HERE - ZHEN BUA JOINT VENTURE										In	tegrated Waste Mana	gemei
Activity ID	Activity Name		Original Duration	Remaining Duration		Current Start	Current Finis	h Late Start	Late Finish	Total M73 Remarks Float	2023 Dec	Jan	2
Trucking Lin II M	As shale O la stallation		30	30	Complete	16-Mar-24	15 Apr 24	02-Nov-23	04 Jan 24	-102	73	74	
	Iodule 2 Installation STG Module 2 Delivery		0	0	0%		18-Mar-24	02-1404-23					
13-2169(11) 13-2170	STG Module 2 Installation		22	22		18-Mar-24		17-Nov-23	03-Nov-23 08-Dec-23	-136 -123			
13-2170-1(11)	TBS Tower 2 Delivery		0	0			19-Mar-24		04-Nov-23	-136			
13-2170-1(6H)	TBS Tower 2 Installation		7	7	0%	19-Mar-24	26-Mar-24	29-Dec-23		-82			
13-2210(6)	Install Maintenance Girder & Cra	ne at Module 2 @+22.247mPd	30	30	0%	16-Mar-24	15-Apr-24	02-Nov-23	01-Dec-23	-136			
Turbine Hall M	Iodule 3 Installation		30	30		18-Mar-24	17-Apr-24	29-Nov-23	28-Dec-23	-111			
13-2260(6)	Install Maintenance Girder & Cra	ne at Module 3@+22.247mPd	30	30	0%	18-Mar-24	17-Apr-24	29-Nov-23	28-Dec-23	-111			
Turbine Hall E	lectrical Room Equipment Instal	llation	102	102		05-Mar-24	15-Jun-24	02-Mar-24	21-Dec-24	190			
Turbine Hall E	Electrical Room @+15.00mPD		90	90		17-Mar-24	15-Jun-24	02-Mar-24	21-Dec-24	190			
13-2290-1(6B)	Switchgear & electrical equipmer	t Installation 1F - I&C room (I/O, Server, Control Panel, Workstation)	90	90	0%	17-Mar-24	15-Jun-24	02-Mar-24	30-May-24	-16			
13-2290-2(6B)		nt Installation 1F - Generator Control Room (GPP,SP,DC batter Charger,Generator contro	90	90		17-Mar-24	15-Jun-24		30-May-24	-16			
13-2290-3(6B)		th Installation 1F - Battery Room (AC UPS, DC Battery Charger)	90	90		17-Mar-24	15-Jun-24		30-May-24	-16			
13-2290-5(6B)	Monorail Hoist System installation	n in Turbine Hall (Tst Floor @+15)	90 90	90 90		17-Mar-24 05-Mar-24			21-Dec-24 21-Dec-24	J. J			
13-2290-6(6B)	Electrical Room @+23.50mPD	n in Turbine Hall (3rd Floor @+23.5)	90 90	90		05-Mar-24							
	CCCW Bld Equipment Installatio		90 104	104		05-Mar-24			31-Mar-24	-77			
· · · · · · · · · · · · · · · · · · ·	the second s		90	90		05-Mar-24			21-Mar-24	-73			
	or Equipment Installation	actulations	90	90									
13-2320	Air Compressor Rm Equipment in	Istaliations	90	90		05-Mar-24 19-Mar-24	03-Jun-24 17-Jun-24		21-Mar-24 31-Mar-24	-73			
13-2330	uipment Installation		90	90		19-Mar-24	17-Jun-24		31-Mar-24				
	CCCW Equipment Installation nt Bld Process Equipment Instal	lation	90 171	90		29-Feb-24		02-Jan-24 03-Mar-24		-18			
13-2400	Piping Installation		150	150		21-Mar-24	, v	03-Mar-24		-18			
13-2400	Electrical and instrumentation Ins	stallation	150	150		21-Mar-24		03-Mar-24		-18			
13-2410-1(6D)	Transformer @ WTP Bldg Switch		90	90		29-Feb-24	0	02-May-24		63			
IWMF Substatio	on Bld Equipment Installation		199	199		31-Dec-23 A	16-Jul-24	31-Oct-23	29-Apr-24	-78			
13-2420	Deliver and Position of Transform	ners@+6.5mPD	15	15	0%	29-Feb-24	14-Mar-24	16-Mar-24	30-Mar-24	16			
13-2430	Deliver and Position of 11kV Tran	ns formers @+6.5mPD (KS)	15	15	0%	29-Feb-24	14-Mar-24	16-Mar-24	30-Mar-24	16			
13-2440	132kV GIS Switch Gear @+6.5m	PD	120	120	0%	17-Feb-24	16-Jun-24	02-Dec-23	30-Mar-24	-78			
13-2450	GIS Insulation Switchboard instal	lation	120	120		17-Feb-24	16-Jun-24	02-Dec-23		-78			
13-2460	Main Switch Board Installation		120	120		13-Jan-24		02-Dec-23		-43			
13-2470 13-2480	Other Associated Equipment Inst Cable Laying and Termination	allation	120 120	120		10-Jan-24 18-Mar-24	08-May-24	02-Dec-23 01-Jan-24		-39 -78			
13-2480 13-2630(6B)	EOTC Hoist System installation in	n Substation @+14 1mPD	30	30				31-Oct-23		-61			
	tallation at External Area		60	60		29-Feb-24			24-Aug-24				
13-2520		on System Installation at Berth Area	60	60	0%	29-Feb-24	28-Apr-24	26-Jun-24	24-Aug-24	118	-		
External Proces			90	90		26-Mar-24			30-May-24				
· · · · · · · · · · · · · · · · · · ·	Ion-process Piping Works		90	90		26-Mar-24	23-Jun-24	02-Mar-24	30-May-24	-24			
	Nodule 1 to Turbine Bld		90	90		26-Mar-24	23-Jun-24	02-Mar-24	30-May-24	-24			
13-2550	Piping Installation Works		90	90	0%	26-Mar-24	23-Jun-24	02-Mar-24	30-May-24	-24			
	3 Piping from Turbine Bld 1 to C	CCW Bld	90	90					30-May-24				
13-2670	Piping Installation Works		90	90	0%	26-Mar-24	23-Jun-24	02-Mar-24	30-May-24	-24			
	ternal Road and Drains Works		634	116					22-Jun-24				
Underground U			634	116		28-Apr-22 A	24-Apr-24	03-Sep-23	22-Jun-24	59			
	Utility Systems & Cables		90	29					01-Oct-23				
14-1050		ing bay for CLP Transmission System	90	29			28-Jan-24*						
Drainage Work	° °	ыларанан алтан алтан 	289	116		-	24-Apr-24			40			
14-1000-1(M55)	Sewage Transfer System for IWN	/F Vessels (Caisson 13)	60	60			24-Apr-24			40			
Box Culvert			284	111			19-Apr-24	-		45			
	5m x 2.5m x 118m)		139	41		15-May-23 A	09-Feb-24	13-Sep-23	03-Mar-24	24			
14-2010	Construction of Box Culvert (118	m, 1.7m/d)	70	11	85%	15-May-23 A	10-Jan-24	13-Sep-23	23-Sep-23	-109		Construction	1 of Box Cul
14-2020	Backfill, Compaction & Testing		65	10		0	_		03-Mar-24				
	.5m x 2.5m x 102m)		111	111			19-Apr-24			45			
14-3000	Excavation to Formation	~ 1 7m/d)	60	60			28-Feb-24			45			
14-3010 14-3020	Construction of Box Culvert (102) Backfill Compaction & Testing	m, i./mvu)	60 60	60			29-Mar-24 19-Apr-24	-	-	45 45			
	Backfill, Compaction & Testing		60 180	60 100			19-Apr-24 08-Apr-24			75			
Earthing Syste 16-1900-2(6)	Installation of Ground Earthing M	lesh	180	100			08-Apr-24			75			
Works By CLP	•		90				27-Apr-24			2			
			90				27-Apr-24			2			
	Fransmission System	Transmission						30-Jdf1-24					
15-0900 15-1000	Completion of Civil Provision for Construction of Transmission Sys		0 90	0 90			28-Jan-24 27-Apr-24	31, Jan 24	30-Jan-24	2			
13-1000		Juii	70	70	0.10	27-Jui 1*24	21-mp1=24	J1-Jd11=24	27-mp1=24	-			

ntract No. EP/SP/66/12 nent Facilities, Phase 1	環境保護署 Environmental Protection Department
2024 Feb	Mar 76
	76 ♦ STG Module 2 Deliv
	◆ TBS Tower 2 Deliv
	Deliver and Position of Trar Deliver and Position of 11k
EOTC Hoist System installation in	1 Substation @+14. [mPD
Catle Ducting and Landing Jointing	g bay for CLP Transmission System
x Culvert (118m, 1.7m/d)	Excavation to Formation
Completion of Civil Provision for Tra	ansmission
l Milestone	

# Appendix B Summary of Implementation Status of Environmental Mitigation

## Appendix B

Table B.1	Implementation Schedule for Air Quality Measures for the IWMF at the artificial island near SKC
	implementation Schedule for All Quality measures for the IWMF at the artificial Island hear SKC

				Imple	ementat	tion S	tages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
S3b.8.1	<ul> <li><u>Air Pollution Control (Construction Dust)</u> <u>Regulation &amp; Good Site Practices</u></li> <li>Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.</li> <li>Use of frequent watering for particularly dusty construction areas and areas close to ASRs.</li> <li>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 shall be applied to aggregate fines.</li> <li>Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs.</li> <li>Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.</li> <li>Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.</li> <li>Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading</li> </ul>	Work site / During the construction period	Contractor		✓			Air Pollution Control (Construction Dust) Regulation	Deficiency of Mitigation Measures but rectified by the Contractor N/A for dust control measures for transportation outside site boundary

EIA Ref	Environmental Protection Measures / Mitigation Measures			Imple	ementa	ation S	Stages*	Relevant	Implementation
		Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	<ul> <li>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.</li> <li>Imposition of speed controls for vehicles on unpaved site roads. Ten kilometers per hour is the recommended limit.</li> <li>Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs</li> <li>Instigation of an environmental monitoring and auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise.</li> </ul>								
S3b.6.3	<ul> <li>Odour Removal by Deodorizers</li> <li>Deodorizers with 95% odour removal efficiency would be installed for the air ventilated from the mechanical treatment plant before discharge to the atmosphere</li> </ul>	Waste reception halls, the waste storage area, the mechanical treatment plant / During design & operation phase	IWMF Operator	~		✓		EIAO-TM	N/A
S3b.8.2	Air Pollution Control and Stack Monitoring	IWMF stack emissions / During	IWMF Operator	✓		~		EIAO-TM, Supporting Document for	N/A

	Environmental Protection	Location /	Implement	ation S	tages*	Relevant	Implementation		
EIA Ref	Measures / Mitigation Measures	Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	Status and Remarks
	<ul> <li>Air pollution control and stack monitoring system will be installed for the IWMF to ensure that the emissions from the IWMF stack will meet the proposed target emission limits.</li> <li>Voluntary Enhancement Measures in Flue Gas Cleaning and Emission Monitoring: <ol> <li>Two-stage bag filter system with reagent recirculation;</li> <li>In addition to SCR, provide SNCR for removal of NO_x; tighten emission limit for halfhourly and daily NO_x to 160 mg/m³ and 80 mg/m₃ respectively;</li> <li>Well-mixed feed waste: to minimize the fluctuation of pollutant loading on the flue gas treatment system;</li> <li>Two more AQMSs would be set up at South Lantau and Shek Kwu Chau respectively;</li> <li>Limit levels will be set under the IWMF DBO contract to require that waste feed shall cease if any of the air pollutant has exceeded 95% of the emission</li> </ol> </li> </ul>	design & operation phase	Agent						Remarks
	concentration limit as stipulated in the Special Process license;								

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing		Imple	ementa	ation S	tages*	Legislation	Implementation Status and Remarks
			Implementation Agent	Des	С	ο	Dec		
	<ol> <li>Each incineration chamber shall be fitted with auxiliary burners to ensure complete burn out of the combustion gases.</li> </ol>								
-	<ul> <li>Treated Fly Ash and Air Pollution Control Residues:</li> <li>During testing and commissioning, the Contractor shall sample and test every container of treated fly ash and air pollution control residues for conformance to the Incineration Residue Pollution Control Limits and leachability criteria shown in Table 2 of the Environmental Permit. If a test result confirms that any one of the samples does not conform to the limits and the criteria, the Contractor shall be required to sample and test every container of treated fly ash and air pollution control residues for conformance to the Incineration Residue Pollution Control Limits and the criteria, the Contractor shall be required to sample and test every container of treated fly ash and air pollution control residues for conformance to the Incineration Residue Pollution Control Limits and leachability criteria for the next six months.</li> <li>During the first six months of operation, if the requirements in (a) could be fully conformed with, the Contractor shall sample and test every shipload of treated fly ash and air pollution control residues for conformance to the Incineration Residue Pollution Control Limits and lair pollution control residues for conformance to the Incineration Residue Pollution Control Limits and air pollution control residues for conformance to the Incineration Residue Pollution Control Limits and air pollution control residues for conformance to the Incineration Residue Pollution Control Limits and air pollution control residues for conformance to the Incineration Residue Pollution Control Limits and air pollution control residues for conformance to the Incineration Residue Pollution Control Limits and air pollution control residues for conformance to the Incineration Residue Pollution Control Limits and leachability criteria shown in Table 2</li> </ul>	IWMF stack emissions / During design & operation phase	IWMF Operator					Supporting Document for Application for Variation of Environmental Permit (EP- 429/2012)	N/A

				Imple	ementa	ation S	stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
	of the Environmental Permit. The								
	Contractor shall take two samples								
	from each shipload for testing and								
	the Contractor shall not dispose of								
	any of that shipload of treated fly ash								
	and air pollution control residues until								
	the test results confirm that the two								
	samples conform to the limits and the								
	criteria. If a test result confirms that								
	any one of the two samples does not								
	conform to the limits and the criteria,								
	the Contractor shall be required to								
	sample and test every shipload of								
	treated fly ash and air pollution								
	control residues for conformance to								
	the Incineration Residue Pollution								
	Control Limits and leachability								
	criteria for the next six months. The Contractor shall make due allowance								
	in the Design and the Operation for the time to sample and test treated fly								
	ash and air pollution control residues								
	before disposal.								
	Provided that there is no non- conformance to the Incineration								
	Residue Pollution Control Limits and								
	leachability criteria shown in Table 2 of the Environmental Permit								
	throughout a continuous sixmonth period in the Operation Period, the								
	testing frequency shall be reduced to								
	monthly interval. Two samples from								
	one shipload of treated fly ash and air								

	Environmental Protection			Imple	ementa	ation S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	pollution control residues shall be collected and tested for conformance to the Incineration Residue Pollution Control Limits and leachability criteria. The Contractor shall not dispose of any of the treated fly ash and air pollution control residues in the shipload which the samples are taken until the test results confirm that the samples conform to the limits and the criteria. If the test result confirm that any one of the samples does not conform to the limits and the criteria, the Contractor shall be required to sample and test every shipload of treated fly ash and air pollution control residues for conformance to the Incineration Residue Pollution Control Limits and leachability criteria shown in Table 2 of the Environmental Permit for the next six months.								
-	<ul> <li>Bottom Ash:</li> <li>During testing and commissioning, the Contractor shall sample and test every container of bottom ash for conformance to the leachability criteria shown in Table 2 of the Environmental Permit. If a test result confirms that any one of the samples does not conform to the criteria, the Contractor shall be required to sample and test every</li> </ul>	IWMF stack emissions / During design & operation phase	IWMF Operator	~		~		Supporting Document for Application for Variation of Environmental Permit (EP- 429/2012)	N/A

				Imple	ementa	ation S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	container of bottom ash for								
	conformance to the leachability								
	criteria for the next six months.								
	• During the first six months of								
	operation, if the requirements in (d)								
	could be fully conformed with, the								
	Contractor shall sample and test								
	one shipload of bottom ash each								
	month for conformance to the								
	leachability criteria shown in Table 2								
	of the Environmental Permit. The								
	Contractor shall take two samples								
	from the shipload for testing and the								
	Contractor shall not dispose of any of that shipload of bottom ash until								
	the test results confirm that the two								
	samples conform to the criteria. If a								
	test result confirms that any one of								
	the two samples does not conform								
	to the criteria, the Contractor shall								
	be required to sample and test each								
	shipload of bottom ash for								
	conformance to the leachability								
	criteria for the next six months. The								
	Contractor shall make due								
	allowance in the Design and the								
	Operation for the time to sample and								
	test bottom ash before disposal.								
	<ul> <li>Provided that there is no non-</li> </ul>								
	conformance to the leachability								
	criteria shown in Table 2 of the								
	Environmental Permit throughout a								
	continuous six month period in the								

Keppel Seghers – Zhen Hua Joint Venture

	Environmental Protection			Imple	ementa	ation S	stages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation De Agent	Des	С	0	Dec	Legislation and Guidelines	
	Operation Period, the Contractor shall be allowed to take two samples from any one shipload of bottom ash once every six months for conformance to the leachability criteria. The Contractor shall not dispose of any of the bottom ash in the shipload which the samples are taken until the test results confirm that the samples conform to the criteria. If the test result confirm that any one of the samples does not conform to the criteria, the Contractor shall be required to sample and test one shipload of bottom ash each month for conformance to the leachability criteria shown in Table 2 of the Environmental Permit for the next six months as stipulated above.								

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

#### Table B.2 Implementation Schedule for Noise Impact Measures for the IWMF at the artificial island near SKC

					Imple	ementa	ation S	tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent		Des	С	0	Dec	Guidelines	Implementation Status and Remarks
S4b.8	Good site practices to limit noise emissions a source and use of quiet plant and working methods, whenever practicable.		EPD and contractors	its		✓			EIAO-TM	Implemented
S4b.6 & S4b.8	<ul> <li>All the ventilation fans installed in the below will be provided with silencers or acoustics treatment.</li> <li>(i) Stack of the incinerator</li> <li>(ii) Ventilation systems within the IWMF Enclosure and discharge silencer or other acoustic treatment equipment should be installed in the air-cooled chillers</li> <li>Other than provision of silencer or other acoustic treatment equipment for the stack of the incinerator and ventilation system, the detailed design should incorporate the following good practice in order to minimize the nuisance on the neighboring NSRs.</li> <li>(i) The exhaust of the ventilation system and any opening of the building should be located facing away from any NSRs; and</li> <li>(ii) Louver or other acoustic treatment equipment to the any opening of the applied to the</li> </ul>	Within IWMF area / Construction Period	EPD and contractors	its			×		EIAO-TM	N/A

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				Imple	ementa	ation S	tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	Implementation Status and Remarks
-	<ul> <li><u>Voluntary Enhancement Measure</u></li> <li>Provision of air-conditioner and double glazed windows to nearby NSR at Shek Kwu Chau (i.e. SARDA) as precautionary measures.</li> </ul>		Design team, contractor, IWMF operator	•	•			Supporting Document for Application for Variation of Environmental Permit (EP- 429/2012)	Implemented

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

#### Table B.3 Implementation Schedule for Water Quality Measures for the Artificial Island near SKC

				Impl	ementa	ation S	tages*	Relevant	and Remarks	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines		
S5b.8.1.1	MeasuresDrainage and Construction Site RunoffThe site practices outlined in ProPECC PN1/94 "Construction Site Drainage" shouldbe followed as far as practicable in orderto minimise surface runoff and the chanceof erosion. These practices include thefollowing items:• At the start of site establishment, perimeter cut-off drains to direct off- site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implementedChannels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system will be undertaken by the contractor prior to the commencement of construction.• Boundaries of earthworks should be surrounded by dykes or embankments for flood protection, as necessary.• Sand/silt removal facilities such as sand/silt traps and sediment basins	Work site / During the construction period	Contractor						Deficiency of Mitigation Measures but rectified by the Contractor	

				Imple	ement	ation S	Stages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states that the retention time for silt/sand traps should be 5 minutes under maximum flow conditions. The detailed design of the sand/silt traps shall be undertaken by the contractor prior to the commencement of construction.								
	<ul> <li>Water pumped out from foundation piles must be discharged into silt removal facilities.</li> </ul>								
	<ul> <li>Measures should be taken to minimize the ingress of site runoff and drainage into excavations. Drainage water pumped out from excavations should be discharged into storm drains via silt removal facilities.</li> </ul>								
	• During rainstorms, exposed slope/soil surfaces should be covered by a tarpaulin or other means, as far as practicable. Other measures that need to be implemented before, during and after rainstorms are summarized in ProPECC PN 1/94.								
	<ul> <li>Exposed soil areas should be minimized to reduce potential for increased siltation and contamination of runoff.</li> </ul>								

				Impl	ementa	tion S	tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	and Remarks
	• Earthwork final surfaces should be well compacted and subsequent permanent work or surface protection should be immediately performed.								
	Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms.								
S5b.8.1.2	General Construction Activities Construction solid waste should be collected, handled and disposed of properly to avoid entering to the nearby watercourses and public drainage system. Rubbish and litter from construction sites should also be collected to prevent spreading of rubbish and litter from the site area.	Work site / During the construction period	Contractor		•			EIAO-TM; ProPECC PN 1/94; WPCO	Implemented
	It is recommended to clean the construction sites on a regular basis.								

				Impl	ementa	ation S	tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
S5b.8.1.3	There is a need to apply to EPD for a discharge license for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge license. All the run-off and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. The beneficial uses of the treated effluent for other on-site activities such as dust suppression and general cleaning etc., can minimize water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO license which is under the ambit of regional office of EPD.	During the construction	Contractor		•			EIAO-TM; ProPECC PN 1/94; WPCO	Implemented Discharge License was issued on 15/02/2022
S5b.8.1.4	Accidental Spillage Contractor must register as a chemical waste producer if chemical wastes would be produced from 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.	Work site / During the construction period	Contractor		~			EIAO-TM; ProPECC PN 1/94; WPCO; WDO	Deficiency of Mitigation Measures but rectified by the Contractor
S5b.8.1.5		During the construction	Contractor		~			EIAO-TM; ProPECC PN 1/94; WPCO; WDO	Implemented

	Environmental Protection			Impl	ementa	ation Stages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	O Dec	Legislation and Guidelines	Implementation Status and Remarks
	appropriately equipped to control these discharges.							
S5b.8.1.6	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.	Work site / During the construction period	Contractor		✓		EIAO-TM; ProPECC PN 1/94; WPCO; WDO	Implemented
S5b.8.1.7	• •	Work site / During the construction period	Contractor		✓		EIAO-TM; ProPECC PN 1/94; WPCO; WDO	Implemented
	<ul> <li>Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport.</li> <li>Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents.</li> <li>Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.</li> </ul>							

				Impl	ementa	ation S	tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
S5b.8.1.8	Sewage Effluent Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor would be responsible. For appropriate disposal and maintenance of these facilities.	Work site / During the construction period	Contractor		~			EIAO-TM; ProPECC PN 1/94; WPCO	Implemented
S5b.8.1.9		Work site / During the marine construction period	Contractor					EIAO-TM; WPCO, Supporting Document for Application for Variation of Environmental Permit (EP- 429/2012) Further Environmental Permit No. FEP- 01/429/2012/A	N/A

				Imple	emen	tation S	tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
	of the North Western seawall, away from the identified coral communities and will be shielded by silt curtains systems to control sediment plume dispersion.								
	• The silt curtain system at marine access opening should be closed as soon as the barges passes through the marine access opening in order to minimize the period of curtain opening. Filling should only be carried out behind the silt curtain when the silt curtain is completely closed.								
	• To enhance the effectiveness of the silt curtain at the marine access, the northern breakwater would be built before the commencement of the reclamation to reduce the current velocity towards the marine access opening.								
	• The silt curtain system at marine access opening should be regularly checked and maintained to ensure proper functioning.								
	• Where public fill is proposed for filling below +2.5mPD, the fine content in the public fill will be controlled to 25% which is in line with the CEDD's General Specification;								
	• The filling for reclamation should be carried out behind the seawall. The filling material should only consist of public fill, rock and sand. The filling composition and filling rates at each filling area should follow those delineated in Table 1 of the FEP-01/429/2012/. The filling above high watermark is not restricted;								

				Impl	ementa	ation S	Stages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
	<ul> <li>No dredging should be carried out within 16m to the nearest non-translocatable coral community;</li> </ul>								
	• Daily site audit including full-time on-site monitoring by the ET is recommended during the dredging for anti-scouring protection layer for checking the compliance with the permitted no. of grab;								
	<ul> <li>Closed grab dredger should be used to minimize the loss of sediment during the raising of the loaded grabs through the water column;</li> </ul>								
	<ul> <li>Frame-type silt curtains should be deployed around the dredging operations;</li> </ul>								
	<ul> <li>Floating-type silt curtains should be used to surround the circular cell during the sheetpiling work;</li> </ul>								
	<ul> <li>The descent speed of grabs should be controlled to minimize the seabed impact speed;</li> </ul>								
	<ul> <li>Barges should be loaded carefully to avoid splashing of material;</li> </ul>								
	<ul> <li>All barges used for the transport of dredged materials should be fitted with tight bottom seals in order to prevent leakage of material during loading and transport;</li> </ul>								
	<ul> <li>All barges should be filled to a level which ensures that material does not spill over during loading and transport to the disposal site and that adequate freeboard is</li> </ul>								

				Imple	ementa	tion S	tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
	maintained to ensure that the decks are not washed by wave action.								
	• No DCM works should be carried out within 100m to the nearest non-translocatable coral colony / colonies.								
	• Silt curtains should be employed to enclose DCM field trial and any full scale DCM work to minimize the potential impacts on water aspect.								
	• A sand blanket is to be placed on top of the marine deposit using tremie pipes prior to the DCM ground treatment to avoid seabed sediment disturbance.								
S5b.8.2.3	<u>Operational Phase Discharges</u> A pipeline drainage system will serve the development area collecting surface runoff from paved areas, roof, etc. Sustainable drainage principle would be adopted in the drainage system design to minimize peak surface runoff, maximize permeable surface and maximize beneficial use of rainwater.	Within IWMF site / During the operational phase	IWMF Operator	✓ 		~		WPCO	N/A
S5b.8.2.4	Oil interceptors should be provided in the drainage system of any potentially contaminated areas (such as truck parking area and maintenance workshop) and regularly cleaned to prevent the release of oil products into the storm water drainage system in case of accidental spillages. Accidental spillage should be cleaned up as soon as practicable and all waste oils and fuels should be collected and handled in	Within IWMF site / During the operational phase	IWMF Operator	×		V		WPCO; WDO	N/A

				Imple	ementa	tion Stage	* Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	O De	Legislation and Guidelines	Implementation Status and Remarks
	compliance with the Waste Disposal Ordinance.							
S5b.8.2.5	<u>Refuse Entrapment</u> Collection and removal of floating refuse should be performed at regular intervals for keeping the water within the Project site boundary and the neighboring water free from rubbish.	Within the Project site / During the operational phase	IWMF Operator			✓	WPCO	N/A
S5b.8.2.6		Transportat ion of Incineration Ash / During the operational phase	IWMF Operator					N/A

* Des - Design, C - Construction, O - Operation, and Dec - Decommissioning

#### Table B.4 Implementation Schedule for Waste Management Measures for the IWMF at the artificial island near SKC

							tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
6b.5.1.2	<ul> <li><u>Good Site Practices</u></li> <li>Adverse environmental impacts in relation to waste management are not expected, provided that good site practices are strictly followed. Recommendations for good site practices during the construction activities would include:</li> <li>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);</li> <li>Provide staff training for proper waste management and chemical handling procedures;</li> <li>Provide sufficient waste disposal points and regular waste collection;</li> <li>Provide appropriate measures to minimize windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; and</li> <li>Carry out regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;</li> <li>Separate chemical wastes for special handling and disposed of to licensed facility for treatment; and</li> <li>Employ licensed waste collector to collect waste.</li> </ul>	Work Site/ During Construction Period	Contractor					WDO; LDO; ETWB TCW No. 19/2005; EIAO-TM	Implemented

EIA RefMeasures / Mitigation MeasuresLocation / TimingImplementation AgentDesCODecLocation and GoldImplementation and Remark6b.5.1.3Waste Reduction Measures Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices.Work Site/ During Design & Construction PeriodContractor✓✓✓Recommendations to achieve waste reduction include:Recommendation works that could minimize the amount of excavatedRecommendation works that could minimize the amount of excavatedDesCODecDesLogand and BesDeficiency of Measures					Impl	ementa	ation S	stages*		
Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices.       During Design & Measures but rectifie Contractor         Recommendations to achieve waste reduction include:       • Design foundation works that could minimize the amount of excavated       N/A for demolition iteration	EIA Ref	-		-	Des	С	0	Dec	and	Implementation Status and Remarks
<ul> <li>Provide training to workers on the importance of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling;</li> <li>Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.);</li> <li>Segregate and store different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal;</li> <li>Encourage the collection of aluminum cans by providing separate labelled bins to enable this waste to be segregated from other general refuse generated by the work force;</li> <li>Proper storage and site practices to</li> </ul>	6b.5.1.3	<ul> <li>Waste Reduction Measures</li> <li>Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices.</li> <li>Recommendations to achieve waste reduction include:</li> <li>Design foundation works that could minimize the amount of excavated material to be generated.</li> <li>Provide training to workers on the importance of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling;</li> <li>Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.);</li> <li>Segregate and store different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal;</li> <li>Encourage the collection of aluminum cans by providing separate labelled bins to enable this waste to be segregated from other general refuse generated by the work force;</li> </ul>	Work Site/ During Design & Construction	-						Deficiency of Mitigation Measures but rectified by the

					Imple	ementa	ation S	tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementat Agent	ion	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
	<ul> <li>Plan and stock construction materials carefully to minimize amount of waste to be generated and to avoid unnecessary generation of waste.</li> </ul>									
6b.5.1.7	Dredged Sediment – Application of Dumping Permit The project proponent should agree in advance with MFC of CEDD on the site allocation. The project proponent or contractor for the dredging works shall then apply for the site allocations of marine sediment disposal based on the prior agreement with MFC/CEDD. The project proponent or contractor should also be responsible for the application of all necessary permits from relevant authorities, including the dumping permit as required under DASO from EPD, for the disposal of dredged sediment prior to the commencement of the dredging works.	Seawall and Reclamation site / Construction Period	EPD and contractor	its	~	✓			DASO ETWB TCW 34/2002	Implemented
6b.5.1.8	Dredged Sediment – Sediment Quality Report The project proponent or contractor will need to satisfy the appropriate authorities that the quality of the marine sediment to be dredged has been identified according to the requirements of ETWB TCW 34/2002. This should be completed well before the dredging works and would include at least the submission of a formal Sediment Quality Report under Tier I of ETWB TCW No. 34/2002 to DEP for approval. Subject to advice from DEP, it is possible that further marine SI in	Seawall and Reclamation site / Construction Period	EPD and contractor	its	~				DASO ETWB TCW 34/2002	Implemented

				Impl	ementa	ation S	tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
	accordance with ETWB TCW 34/2002 might be necessary for the application of dumping permit under DASO. In such case, a sediment sampling and testing proposal shall be submitted to and approved by DEP before the additional marine SI works.								
6b.5.1.9	Dredged Sediment – Sediment <u>Transportation</u> The barge transporting the sediments to the designated disposal sites should be equipped with tight fitting seals to prevent leakage and should not be filled to a level that would cause overflow of materials or laden water during loading or transportation. In addition, monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the DEP.	Seawall and Reclamation site / Construction Period	EPD and its contractor		✓			DASO ETWB TCW 34/2002	Implemented
6b.5.1.10		Work Site/ During Design & Construction Period	Contractor	×	*			ETWB TCW No. 19/2005	Implemented

				Impl	ementa	ation S	tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
	(EMP), should be prepared in accordance with ETWB TCW No.19/2005;								
	<ul> <li>A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be adopted for easy tracking; and</li> </ul>								
	<ul> <li>In order to monitor the disposal of C&amp;D materials at public filling facilities and landfills and to control fly-tipping, a trip- ticket system should be adopted (refer to <i>ETWB TCW No. 31/2004</i>).</li> </ul>								
6b.5.1.1 1 – 6b.5.1.12	The Contactor should prepare and implement an EMP in accordance with	During Design &	Contractor	×	*			ETWB TCW No. 19/2005	Implemented

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				Impl	ementa	ation S	tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
	All surplus C&D materials arising from or in connection with construction works should become the property of the Contractor when it is removed unless otherwise stated. The Contractor would be responsible for devising a system to work for on-site sorting of 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.								
6b.5.1.13	<u>Chemical Wastes</u> Should chemical wastes be produced at the construction site, the Contractor would be required 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	Work Site/ During Construction Period	Contractor		•			Waste Disposal (Chemical Waste) (General) Regulation	Implemented.

				Imple	ementa	ation S	tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
	licensed collector to transport and dispose of the chemical wastes, to either the Chemical Waste Treatment Centre at Tsing Yi, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.								
6b.5.1.14	<u>General Refuse</u> General refuse should be stored in enclosed bins or compaction units separate from C&D materials. A licensed waste collector should be employed by the Contractor to remove general refuse from the site, separately from C&D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	Work Site/ During Construction Period	Contractor						Deficiency of Mitigation Measures but rectified by the Contractor
6b.5.1.1 6 – 6b.5.1.33	<ul> <li><u>Biogas Generation</u></li> <li>The Contractor shall review the data and analysis results, and the data from further Site Investigation, if any. Subject to the review findings, the following gas protection measures may be considered if necessary: <ul> <li>gas monitoring after reclamation;</li> <li>passive ventilation;</li> <li>gas impermeable membrane;</li> <li>ventilation with "at risk" rooms;</li> <li>protection of utilities or below ground services;</li> </ul></li></ul>	Reclamation site (if dredging at the reclamation site is not required) / Design & Construction Period	Designer and/or contractor	×	✓			EPD/TR8/97	N/A

				Implemen	tation S	stages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des C	0	Dec	Legislation I and Guidelines	mplementation Status and Remarks
6b.5.2.1	Measures     - precautions during construction works;     - precautions prior to entry of belowground services <u>Good Site Practices</u> It is recommended that the following good operational practices should be adopted to minimise waste management impacts:     Obtain the necessary waste disposal permits from the appropriate authorities, in accordance with the	IWMF Site/During Operation Period	IWMF Operator		✓		Guidelines Waste Disposal N/A Ordinance (Cap.354); Waste Disposal (Chemical Waste) (General) Regulation; ETWB TCW No. 1/2004	
	<ul> <li>authorities, in accordance with the Waste Disposal Ordinance (Cap. 354) and Waste Disposal (Chemical Waste) (General) Regulation;</li> <li>Nomination of an approved person to be responsible for good site practice, arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site;</li> <li>Use of a waste haulier licensed to collect specific category of waste;</li> <li>A trip-ticket system should be included as one of the contractual requirements and implemented by the Environmental Team to monitor the disposal of solid wastes at landfills, and to control fly tipping. Reference should be made to ETWB TCW No. 31/2004.</li> </ul>						1/2004	

				Impl	ementa	ation S	tages*	Relevant	and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	Ο	Dec	Legislation and Guidelines	
	<ul> <li>Training of site personnel in proper waste management and chemical waste handling procedures;</li> <li>Separation of chemical wastes for special handling and appropriate treatment at a licensed facility;</li> <li>Routine cleaning and maintenance programme for drainage systems, sumps and oil interceptors;</li> <li>Provision of sufficient waste disposal points and regular collection for disposal;</li> <li>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</li> <li>Implementation of a recording system for the amount of wastes generated, and disposed of (including recycled the disposal sites).</li> </ul>								
6b.5.2.2	<ul> <li><u>Waste Reduction Measures</u></li> <li>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:</li> <li>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;</li> </ul>	IWMF Site/ During Operation Period	IWMF Operator			V			Implemented

				Imple	ementa	ation S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	<ul> <li>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</li> <li>Any unused chemicals or those with remaining functional capacity should be reused as far as practicable.</li> </ul>								
6b.5.2.3	Storage, Handling, Treatment, Collection and Disposal of Incineration By-Products The following measures are recommended for the storage, handling and collection of the incineration by- products:	IWMF Site/ During Operation Period	IWMF Operator			~		Incineration Residue Pollution Control Limits	N/A
	<ul> <li>Ash should be stored in storage silos;</li> <li>Ash should be handled and conveyed in closed systems fully segregated from the ambient environment;</li> </ul>								
	<ul> <li>Ash should be wetted with water to control fugitive dust, where necessary;</li> </ul>								
	<ul> <li>All fly ash and APC residues should be treated, e.g. by cement solidification or chemical stabilization, for compliance with the proposed Incineration Residue Pollution Control Limits and leachability criteria prior to disposal;</li> </ul>								

				Impl	ement	ation S	Stages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	The ash should be transported in covered trucks or containers to the designated landfill site.								
	The Contractor should provide EPD with chemical analysis results of the bottom ash, and treated fly ash and APC residues to confirm that the ash/residue can comply with the proposed Incineration Residue Pollution Control Limits before disposal.								
6b.6.3.1	<ul> <li>Fuel Oil Tank Construction and Test</li> <li>The fuel tank to be installed should be of specified durability.</li> <li>Double skin tanks are preferred.</li> <li>Underground fuel storage tank should be placed within a concrete pit.</li> <li>The concrete pit shall be accessible to allow regular tank integrity tests to be carried out at regular intervals.</li> <li>Tank integrity tests should be conducted by an independent qualified surveyor or structural engineer.</li> </ul>	Fuel Oil Storage Tank/ During Design, Construction and Operation Periods	IWMF Contractor	×	V	×			N/A
	<ul> <li>Any potential problems identified in the test should be rectified as soon as possible.</li> </ul>								

				Imple	ementa	ation S	tages*	Relevant	and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
6b.6.3.1	<ul> <li>Fuel Oil Pipeline Construction and Test</li> <li>Installation of aboveground fuel oil pipelines is preferable; if underground pipelines are unavoidable, concrete lined trenches should be constructed to contain the pipelines.</li> <li>Double skin pipelines are preferred.</li> <li>Distance between the fuel oil refuelling points and the fuel oil storage tank shall be minimized.</li> <li>Integrity tests for the pipelines should be conducted by an independent qualified surveyor or structural engineer at regular intervals.</li> <li>Any potential problems identified in the test should be rectified as soon as possible.</li> </ul>	Fuel Oil Pipelines/ During Design, Construction and Operation Periods	IWMF Contractor	~	✓				N/A
6b.6.3.1	<ul> <li>Fuel Oil Leakage Detection</li> <li>Installation of leak detection device at storage tank and pipelines.</li> <li>Installation and use of pressure gauges (e.g. at the two ends of a filling line) in fuel filling, which allows unexpected pressure drop or difference and sign of leakage to be detected.</li> </ul>	Fuel Oil Storage Tank and Pipelines/ During Design, Construction and Operation Periods	IWMF Contractor	~	✓	✓			N/A
6b.6.3.1	Fuel Oil Storage Tank Refuelling	Fuel Oil Refuelling Point/	IWMF Operator			~			N/A

				Impl	ementa	ation S	Stages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
	<ul> <li>Storage tank refuelling (from road tanker) should only be conducted by authorized staff of the oil company using the company's standard procedures.</li> </ul>	During Operation Period							
6b.6.3.1	Fuel Oil Spillage Response An Oil Spill Response Plan should be prepared by the operator to document the appropriate response procedures for oil spillage incidents in detail. General procedures to be taken in case of fuel oil spillage are presented below.	IWMF Site/ During Operation Period	IWMF Operator			~			N/A
	Training								
	- Training on oil spill response actions should be given to relevant staff. The training shall cover the followings:								
	<ul> <li>Tools &amp; resources to combat oil spillage and fire, e.g. locations of oil spill handling equipment and fire fighting equipment;</li> <li>General methods to deal with oil spillage and fire incidents;</li> <li>Procedures for emergency drills in the event of oil spills and fire; and</li> <li>Regular drills shall be carried out.</li> </ul>								
	Communication								
	-Establish communication channel with the Fire Services Department (FSD) and EPD to report any oil spillage incident								

				Imple	ementa	ation S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	so that necessary assistance from relevant department can be quickly sought.								
	Response Procedures								
	-Any fuel oil spillage within the IWMF site should be immediately reported to the Plant Manager with necessary details including location, source, possible cause and extent of the spillage.								
	<ul> <li>Plant Manager should immediately attend to the spillage and initiate any appropriate action to confine and clean up the spillage. The response procedures shall include the following:</li> <li>Identify and isolate the source of spillage as soon as possible.</li> <li>Contain the oil spillage and avoid infiltration into soil/ groundwater and discharge to storm water channels.</li> <li>Remove the oil spillage.</li> </ul>								
	≻Clean up the contaminated area.								
	<ul> <li>If the oil spillage occurs during storage tank refuelling, the refueling operation should immediately be stopped.</li> <li>Recovered contaminated fuel oil</li> </ul>								
	and the associated material to remove the spilled oil should be considered as chemical waste. The handling and disposal								

	Environmental Protection			Impl	ementa	ation S	stages*	Relevant	and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	
	procedures for chemical wastes are discussed in the following paragraphs.								
6b.6.3.2	<ul> <li><u>Chemicals and Chemical Wastes Handling &amp; Storage</u></li> <li>Chemicals and chemical wastes should only be stored in suitable containers in purpose-built areas.</li> <li>The storage of chemical wastes should comply with the requirements of the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.</li> <li>The storage areas for chemicals and chemical wastes shall have an impermeable floor or surface. The impermeable floor/ surface shall possess the following properties:         <ul> <li>Not liable to chemically react with the materials and their containers to be stored.</li> <li>Able to withstand normal loading and physical damage caused by container handling</li> <li>The integrity and condition of the impermeable floor or surface at regular intervals to ensure that it is satisfactorily maintained</li> </ul> </li> </ul>	Chemicals and Chemical Wastes Storage Area / During Operation Period	IWMF Operator						N/A
	For liquid chemicals and chemical wastes storage, the								

				Imple	menta	ation S	tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
	storage area should be bunded 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 containers shall be checked at regular intervals for their structural integrity and to ensure that the caps or fill points are tightly closed.								
	Chemical handling shall be conducted by trained workers under supervision.								
6b.6.3.2	<ul> <li><u>Chemicals and Chemical Wastes Spillage</u> <u>Response</u></li> <li>A Chemicals and/ or Chemical Wastes Spillage Response Plan shall 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/ chemical waste spillages are presented below.</li> <li>Training</li> </ul>	IWMF Site/ During Operation Period	IWMF Operator			~			N/A
	<ul> <li>Training on spill response actions should be given to relevant staff. The training shall cover the followings:</li> </ul>								

				Imple	ementa	ation St	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	Tools & resources to handle spillage, e.g. locations of spill handling equipment;								
	<ul> <li>General methods to deal with spillage; and</li> </ul>								
	<ul> <li>Procedures for emergency drills in the event of spills.</li> </ul>								
	Communication								
	<ul> <li>Establish communication channel with FSD and EPD to report the spillage incident so that necessary assistance from relevant department can be quickly sought.</li> </ul>								
	Response Procedures								
	<ul> <li>Any spillage within the IWMF site should be reported to the Plant Manager.</li> </ul>								
	<ul> <li>Plant Manager shall attend to the spillage and initiate any appropriate actions needed to confine and clean up the spillage. The response procedures shall include the followings:</li> </ul>								
	<ul> <li>Identify and isolate the source of spillage as soon as possible;</li> </ul>								
	Contain the spillage and avoid infiltration into soil/								

				Imple	ementa	ation S	stages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
	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.								
6b.6.3.3	<ul> <li><u>Preventive Measures for Incineration Byproducts Handling</u></li> <li>The recommended measures listed below can minimize the potential contamination to the surrounding environment due to the incineration by-products: <ul> <li>Ash should be stored in storage silos;</li> <li>Ash should be handled and conveyed in closed systems fully segregated</li> </ul> </li> </ul>	Storage, Handling & Collection of Incineration Ash at IWMF/ During Operation Period	IWMF Operator			V			N/A

				Imple	menta	ation S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	from the ambient environment;								
	<ul> <li>Ash should be wetted with water to control fugitive dust, where necessary;</li> </ul>								
	<ul> <li>All fly ash and APC residues should be treated, e.g. by cement solidification or chemical stabilization, for compliance with the proposed Incineration Residue Pollution Control Limits and leachability criteria prior to disposal;</li> </ul>								
	• The ash should be transported in covered trucks or containers to the designated landfill site.								
6b.6.3.4 -6b.6.3.6	Incident Record After any spillage, an incident report should be prepared by the Plant 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.	IWMF Site/ During Operation Period	IWMF Operator			✓		Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management and the Guidance Note for Contaminated Land and Remediation.	N/A

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				Imple	ementa	ation S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	In case any spillage or accidents results in significant land contamination, EPD should be informed immediately and the IWMF operator should be responsible for the cleanup of the affected area. The responses procedures described in <b>Section 6b.6.3.1</b> and <b>Section 6b.6.3.2</b> of EIA report should be followed accordingly together with the land contamination assessment and remediation guidelines stipulated in the <i>Guidance Manual for Use</i> of <i>Risk-based Remediation Goals for</i> <i>Contaminated Land Management and the</i> <i>Guidance Note for Contaminated Land and</i> <i>Remediation.</i>								

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

	Environmental Protection			Imple	ementa	ation S	tages*	Relevant	and Remarks
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
7b.8.2.1	<ul> <li>Measures to avoid direct loss of intertidal habitat</li> <li>The site boundary has been proposed to avoid direct contact with the intertidal natural rocky shore of Shek Kwu Chau. It avoids direct loss of intertidal communities and the existing natural rocky shore habitat, where Reef Egret and White-bellied Sea Eagle have been recorded within and in the vicinity of this habitat.</li> </ul>	IWMF site	Design team	~				EIAO-TM	N/A
7b.8.2.2	<ul> <li>Measures to minimise loss of coastal subtidal habitat</li> <li>Extensive coral colonies were recorded at the coastal hard bottom habitat at Shek Kwu Chau. To avoid and minimise the extensive direct impact on the coral colonies, the proposed reclamation area has been moved further offshore to minimise loss of subtial habitat near shore.</li> </ul>	IWMF site	Design team	×				EIAO-TM	N/A
7b.8.2.3	<ul> <li>Zero Discharge Scheme</li> <li>The design scheme of the Project has avoided discharge of wastewater into the marine environment. A zero discharge scheme would be adopted during the operation of the Project. An on-site wastewater treatment plant would be</li> </ul>	IWMF site	Design team, IWMF operator			~		WPCO	N/A

#### Table B.5 Implementation Schedule for Ecological Quality Measures for the IWMF at the artificial island near SKC

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	Environmental Protection				Impl	ementa	ation S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implemen Ager		Des	С	0	Dec	Legislation and Guidelines	
	provided to treat the wastewater generated from the IWMF (mainly human sewage). The treated effluent would be re-used in the incineration plant and mechanical treatment plant, or for onsite washdown and landscape.									
7b.8.2.4	<ul> <li>Measures to avoid loss of plant species of conservation importance</li> <li>Landing portal construction works would not cause direct lost to the recorded individual of protected plant species,</li> <li>Aquilaria sinensis, at the coastal shrubland habitat at Cheung Sha. As a precautionary measure, the plant should be tagged with eye- catching tape and fenced off prior to works, in order to avoid any damage by workers.</li> </ul>	Cheung Sha Ianding portal	Design Contractor	team,	✓	~		<b>√</b>	EIAO-TM	N/A
7b.8.3.1 - 7b.8.3.1 5	<ul> <li>Measures to minimise water quality impact</li> <li>Measures for water quality as recommended in Section 5b of the EIA Report should be implemented.</li> </ul>	Work site	Design contractor, operator	team, IWMF	~	V	V	~	EIAO-TM; ProPECC PN 1/94; WPCO	Implemented
7b.8.3.1 6 - 7b.8.3.3 0	Measures to minimise disturbance on Finless Porpoise Minimisation of Habitat Loss for Finless Porpoise	IWMF site, work site, marine traffic route	Design contractor, operator	team, IWMF	✓	✓	✓	<b>√</b>	EIAO-TM, Supporting Document for Application for Variation of the Environmental	Implemented for avoidance o construction works that may produce underwater acoustic disturbance, Vessel Travel Route implementation, training of staff; N/A for other

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	Environmental Protection			Impl	ementa	ation S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	
	-	I Iming	Agent						
	<ul> <li>sheet piling works for construction of cofferdam surrounding the reclamation area (Phase 1);</li> <li>sheet piling works for construction of the shorter</li> </ul>								

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	Environmental Protection			Imple	ementa	ation S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	<ul> <li>sheet piling works for construction of the remaining section of breakwater (Phase 3) and</li> <li>bored piling works for berth area (Phase 3)</li> </ul>								
	Such works should be restricted within June to November. This approach would not only avoid the peak season for Finless Porpoise occurrence, the magnitude of impacts arise from acoustic disturbance would also be minimised.								
	• Since the DCM ground treatment and the installation of precast seawalls and breakwaters should generate no underwater acoustic disturbance to Finless Porpoise, no specific mitigation measures are required.								
	Opt for quieter construction methods and plants								
	<ul> <li>Considering the sensitivity of marine mammals to underwater acoustic disturbance, instead of the previously proposed conventional breakwater and reclamation peripheral structure,</li> </ul>								
	which requires noisy piling works, the current circular cells structure for								

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	Environmental Protection			Imple	emen	tation S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	
	<ul> <li>breakwater and reclamation peripheral structure is proposed. A quieter sheet piling method using vibratory hammer or hydraulic impact hammer, should be adopted for the installation of circular cells for cellular cofferdam and northern breakwater during Phase 1, and southern breakwater Phase 3;</li> <li>Non-percussive bore piling method would be adopted for the installation of two states are preserved as a sector of the sect</li></ul>								
	tubular piles for the berth construction during Phase 3.								
	Monitored exclusion zones								
	<ul> <li>During the installation/re-</li> </ul>								
	installation/relocation process of								
	floating type silt curtains, in order to avoid the accidental entrance and								
	entrapment of marine mammals within								
	the silt curtains, a monitored exclusion								
	zone of 250 m radius from silt curtain								
	should be implemented. The								
	exclusion zone should be closely								
	monitored by an experienced marine								
	mammal observer at least 30 minutes before the start of installation/re-								
	installation/relocation process. If a								
	marine mammal is noted within the								
	exclusion zone, all marine works								
	should stop immediately and remain								
	idle for 30 minutes, or until the								

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	Environmental Protection			Imple	ement	tation S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Measures / Mitigation Measures	Location / II Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	
	exclusion zone is free from marine mammals.								
	<ul> <li>The experienced marine mammal observer should be well trained to detect marine mammals. Binoculars should be used to search the exclusion zone from an elevated platform with unobstructed visibility. The observer should also be independent from the project proponent and has the power to call-off construction activities.</li> </ul>								
	<ul> <li>In addition, as marine mammals cannot be effectively monitored within the proposed monitored exclusion zone at night, or during adverse weather conditions (i.e. Beaufort 5 or above, visibility of 300 meters or below), marine works should be avoided under weather conditions with low visibility.</li> </ul>								
	Marine mammal watching plan								
	<ul> <li>Upon the completion of the installation/re- installation/relocation of floating type silt curtain, all marine works would be conducted within a fully enclosed environment within the silt curtain, hence exclusion zone monitoring would no longer</li> </ul>								

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	Environmental Drotection			Imple	ementa	ation S	tages*	Relevant	
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
	be required. Subsequently, a marine mammal watching plan should be implemented.								
	The plan should include regular inspection of silt curtains, and visual inspection of the waters surrounded by the curtains. Special attention should be paid to Phase 2 (reclamation) where the floating type still curtain would be opened occasionally for vessel access, leaving a temporary 50 m opening. An action plan should be devised to cope with any unpredicted incidents such as the case when marine mammals are found within the waters surrounded by the silt curtains.								
	Small openings at silt curtains								
	• The openings for vessel access at the silt curtains should be as small as possible to minimise the risk of accidental entrance.								
	Adoption of regular travel route								
	<ul> <li>During construction and operation, captains of all vessels should adopt regular travel route, in order to minimize the chance of vessel collision with</li> </ul>								

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EIA Ref	Environmental Protection			Imple	emen	tation S	tages*	Relevant	Implementation Status and Remarks
	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	
	marine mammals, which may otherwise result in damage to health or mortality. The regular travel route should avoid areas with high sighting								
	density of Finless Porpoise as much as possible.								
	Vessel speed limit								
	• The frequent vessel traffic in the								
	vicinity of works area may increase the chance of mammal mammals being								
	killed or seriously injured by vessel								
	collision. A speed limit of ten knots								
	should be strictly enforced within areas with high density of Finless Porpoise.								
	Passive acoustic monitoring and land-								
	based theodolite monitoring surveys								
	should be adopted to verify the								
	predicted impacts and effectiveness of the proposed mitigation measures.								
	Training of Staff								
	• Staff, including captains of vessels,								
	should be aware of the guidelines for								
	safe vessel operations in the presence								
	of cetaceans during construction and operation phases. Adequate trainings								
	should be provided								

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	Environmental Protection				Impl	<u>emen</u> t	<u>ation</u> S	tages*	Relevant	
EIA Ref	Measures / Mitigation Measures	Location / Timing	Impleme Age		Des	С	0	Dec	Legislation and Guidelines	Implementation Status and Remarks
7b.8.3.3 1 - 7b.8.3.3 4	Measures to minimise impact on corals Coral translocation	IWMF site	Design contractor, operator	team, IWMF	~	~	•	<b>√</b>	EIAO-TM	Implemented, tagged coral found missing after hitting by typhoons
	<ul> <li>Coral communities within and in proximity to the proposed dredging sites would be disturbed by the Project due to the dredging operations. In order to minimise direct loss of coral communities, translocation of corals that are attached to movable rocks with diameter less than 50 cm are recommended. In order to avoid disturbance to corals during the spawning period, the spawning season of corals (June to August) should be avoided; and that translocation should be carried out during the winter season (November- March).</li> </ul>									Re-tagging of 10 coral colonies at indirect impact site and control site were conducted in November and December 2018 respectively.
	• The REA survey results suggest that the 198 directly affected coral colonies were attached to movable rocks (less than 50 cm in diameter). It is technically feasible to translocate them to avoid direct loss.									
	<ul> <li>Prior to coral translocation, a more detailed baseline survey, including a coral mapping survey, is recommended to further confirm the</li> </ul>									

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	Environmental Protection			Imple	ement	ation S	tages*	Relevant	
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	Implementation Status and Remarks
	exact number and location of coral colonies within the potentially affected area. A more detailed coral translocation plan, including selection of suitable recipient site, plan for coral translocation, and event / action plan for coral monitoring should be submitted upon approval of this Project, prior to commencement of construction works. Advice from relevant governmental departments (i.e. AFCD) and professionals would be sought after, in order to identify a desirable location for the relocation of coral communities. Post-translocation monitoring on the translocated corals should also be considered.								
	Coral monitoring programme								
	<ul> <li>A coral monitoring programme is recommended to assess any adverse and unacceptable impacts to the coral communities at the coasts of Shek Kwu Chau during construction of the Project.</li> </ul>								
	Phasing of Works								
	<ul> <li>To minimize environmental impacts, the proposed phasing of construction works has been carefully designed to</li> </ul>								

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	Environmental Protection			Impl	ementa	ation S	tages*	Relevant	Implementation Status
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	Implementation Status and Remarks
	reduce the amount of concurrent works, hence minimize SS elevation and the associated impacts on corals.								
7b.8.3.3 5 - 7b.8.3.4 1	<ul> <li><u>Specific measures to minimize</u> <u>disturbance on breeding White-bellied</u> <u>Sea Eagle</u></li> <li>Avoidance of noisy works during the breeding season of White-bellied Sea Eagle</li> <li>To minimize potential noise disturbance from construction activities on WBSE, noisy construction works should be scheduled outside their breeding season (December to May) to minimise potential degradation in breeding ground quality and breeding activities, including:</li> <li>sheet piling works for construction of cofferdam surrounding the reclamation area (Phase 1);</li> <li>sheet piling works for construction of the shorter section of breakwater (Phase 1);</li> <li>sheet piling works for construction of the remaining section of breakwater (Phase 3); and</li> <li>bored piling works for berth area (Phase 3).</li> </ul>		Design Team, Contractor, IWMF operator					EIAO-TM	Implemented

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	Environmental Protection			Imple	ementa	ation S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	Opt for quieter construction methods and plants								
	<ul> <li>To minimise potential construction noise disturbance on WBSE, quieter construction methods and plants should be adopted. The recommended noise mitigation measures in the Noise chapter (Section 4b.8 of the EIA Report) should be implemented to minimise potential noise disturbance to acceptable levels.</li> </ul>								
	Restriction on vessel access near the nest of White-bellied Sea Eagle								
	• During construction and operation, in order to minimize disturbance on the existing WBSE nest, a pre-defined practical route to restrict vessel access near the nest should be adopted to keep vessels and boats as far away from the nest as possible.								
	White-bellied Sea Eagle monitoring programme								
	<ul> <li>A WBSE monitoring programme is recommended to assess any adverse and unacceptable impacts to the breeding activities of WBSE during construction and operation of the</li> </ul>								

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	Environmental Protection			Imple	ementa	ation S	Stages*	Relevant		
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	Implementation Status and Remarks	
	<ul> <li>Project. Monitoring surveys for WBSE would include pre-construction phase (twice per month for duration of three months during their breeding season -between December and May, immediately before the commencement of works), construction phase, and operation phase (two years after the completion of construction works).</li> <li>Surveys should be conducted twice per month during their breeding season (from December to May); and once per month outside breeding season (June to November). More details on monitoring for WBSE are presented in the EM&amp;A Manual.</li> </ul>									
	<ul> <li>Education of staff</li> <li>Staff, including captains of all vessels during construction and operation phases, should be aware of the ecological importance of WBSE. Awareness should be raised among staff to minimise any intentional or</li> </ul>									
	unintentional disturbance to the nest. <i>Minimisation of Glare Disturbance</i>									

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	Environmental Protection			Impl	ementa	tion Stag	es* Relevant	
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	Des C O D		ec Legislation and Guidelines	Implementation Status and Remarks
	<ul> <li>To minimise glare disturbance on WBSE, which may cause disorientation of birds by interfering with their magnetic compass, and disruption in behavioural patterns such as reproduction, fat storage and foraging pattern, any un-necessary outdoor lighting should be avoided, and in-ward and down-ward pointing of lights should be adopted.</li> </ul>							
-	<ul> <li><u>Construction of Seawall/Breakwaters</u></li> <li>To widen the open channel between the Artificial Island and Shek Kwu Chau.</li> <li>To design the precast concrete seawall with environmental friendly features.</li> </ul>	IWMF site	Design team, contractor, IWMF operator	✓ ✓	✓		Supporting Document for Application for Variation of Environmental Permit (EP- 429/2012)	N/A
7b.8.3.42	<ul> <li>Opt for Quieter Construction Methods and Plants</li> <li>Quieter construction methods and plants should be used to minimise disturbance to the nearby terrestrial habitat and the associated wildlife.</li> </ul>	Work site	Design team, contractor, IWMF operator	<b>√</b>	<b>√</b>	× ,	EIAO-TM	Implemented
7b.8.3.43	<ul> <li>Measures to minimize impacts from artificial lighting</li> <li>Unnecessary lighting should be avoided, and shielding of lights should be provided to minimize disturbance from light pollution on fauna groups.</li> </ul>	IWMF site	Design team, contractor, IWMF operator	<b>v</b>	✓	×	EIAO-TM	Implemented

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	Environmental Protection			Imple	ementa	ation S	tages*	Relevant	Implementation Status and Remarks	
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines		
7b.8.3.4 4 - 7b.8.3.4 5	<ul> <li>Measures to minimize accidental spillage</li> <li>Regular maintenance of vessels, vehicles and equipment that may cause leakage and spillage should only be undertaken within predesignated areas, which are appropriately equipped to control the associated discharges.</li> <li>Oils, fuels and chemicals should be contained in suitable containers, and 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.</li> </ul>		Contractor, IWMF operator		✓	✓	✓	EIAO-TM	Deficiency of Mitigation Measures but rectified by the Contractor.	
7b.8.3.46	<ul> <li>Measures to minimise sewage effluent</li> <li>Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce.</li> </ul>	Work site	Contractor		✓			EIAO-TM	N/A	
7b.8.3.47	<b>M</b>	Work site	Contractor		✓		~	EIAO-TM	N/A	

Integrated Waste Management Facilities, Phase 1

Integrated Waste Management Facilities, Phase 1

	Environmental Protection			Impl	ementa	tion S	tages*	Relevant		
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	с	0	Dec	Legislation and Guidelines	Implementation Status and Remarks	
	site should be covered with tarpaulin or similar fabric during rainstorms.									
7b.8.3.48	<ul> <li>Measures to minimise impacts from general construction activities</li> <li>To avoid the entering of construction solid waste into the nearby habitats, construction solid waste should be collected, handled and disposed of properly to avoid entering to the nearby habitats. It is recommended to clean the construction sites on a regular basis.</li> </ul>	Work site	Contractor		~			EIAO-TM	Implemented	
7b.8.3.49	Pest Control         Good waste management practices should be adopted at the IWMF in order to minimise the risk of introduction of pest to the island:         -       Transportation of wastes in enclosed containers         -       Waste storage area should be well maintained and cleaned         -       Waste should only be disposed of at designated areas         -       Timely removal of the newly arrived waste         -       Removal of items that are capable of retaining water         -       Rapid clean up of any waste spillages	IWMF site	IWMF operator			•			N/A	

Integrated Waste Management Facilities, Phase 1

	Environmental Protection			Impl	ementa	ation S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	<ul> <li>Maintenance of a tidy and clean site environment</li> <li>Regular application of pest control</li> <li>Education of staff the importance of cite clean is an an</li></ul>								
7b.8.3.50	site cleanliness Control of Marine Habitat Quality during Operation Phase	IWMF site	IWMF operator			~		EIAO-TM; WPCO	N/A
	<ul> <li>Depending on the seabed condition of the approach channel for marine vessels during operation phase of the IWMF, maintenance dredging may be required to ensure safe access. In order to avoid degradation in water quality due to elevation in SS and dispersion of sediment plume due to dredging works, it is recommended that any future maintenance dredging works should not be carried out within 100 m from the shore, similar to that of the dredging for anti-scouring protection layer during construction phase. All maintenance dredging works should be carried out with the implementation of silt curtain to control the dispersion of SS. The production rate should comply with the permit dredging rate and number of grab per hour.</li> </ul>								
7b.8.4. 1 –	Compensation of loss of important habitat of Finless Porpoise	Waters between Shek	Project Proponent	~		~		EIAO-TM	N/A

Integrated Waste Management Facilities, Phase 1

	Environmental Protection			Imple	ement	ation S	stages*	Relevant	Implementation Status and Remarks
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	ο	Dec	Legislation and Guidelines	
7b.8.4. 8	Designation of Marine Park	Kwu Chau and Soko Islands							
	<ul> <li>The Project Proponent has made a firm commitment to seek to designate a marine park of approximately 700 ha in the waters between Soko Islands and Shek Kwu Chau, in accordance with the statutory process stipulated in the Marine Parks Ordinance, as a compensation measure for the habitat loss arising from the construction of the IWMF at the artificial island near SKC.</li> <li>The Project Proponent shall seek</li> </ul>								
	to complete the designation by 2018 to tie in with the operation of the IWMF at the artificial island near SKC.								
	<ul> <li>A further study should be carried out to review relevant previous studies and collate available information on the ecological characters of the proposed area for marine park designation; and review available survey data for Finless Porpoise, water quality, fisheries, marine traffic and planned development projects in the vicinity. Based on the findings, ecological</li> </ul>								
	profiles of the proposed area for marine park designation should be established, and the extent and								

Integrated Waste Management Facilities, Phase 1

	Environmental Protection			Impl	ementa	ation S	tages*	Relevant	Implementation Status and Remarks
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	location of the proposed marine park be determined. The adequacy of enhancement measures should also be reviewed.								
	<ul> <li>In addition, a management plan for the proposed marine park should be proposed, covering information on the responsible departments for operation and management (O&amp;M) of the marine park, as well as the O&amp;M duties of each of the departments involved. Consultation with relevant government departments and stakeholders should be conducted under the study. The study should be submitted to Director of Environmental Protection (DEP) for approval before the commencement of construction works.</li> </ul>								
	<ul> <li>The Project Proponent should provide assistance to AFCD during the process of</li> </ul>								
	the marine park designation.								
7b.8.5. 1 –	Additional Enhancement or	Within the	Project Proponent	$\checkmark$		$\checkmark$		EIAO-TM	N/A
1 – 7b.8.5. 4	Precautionary Measures Deployment of Artificial Reefs	proposed marine park under this							
	<ul> <li>Deployment of artificial reefs (ARs) is an enhancement measure for the marine habitats. ARs are proposed to be deployed within the proposed</li> </ul>	study							

Integrated Waste Management Facilities, Phase 1

Keppel Seghers – Zhen Hua Joint Venture

	Environmental Protection			Imple	ementa	ation S	Stages*	Relevant	Implementation Status and Remarks
EIA Ref	Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	
	<ul> <li>marine park under this Project. The exact location, dimension and type of ARs to be deployed are to be further investigated along with the further study of the proposed marine park under this Project. The proposed ARs would be deployed at the same time as the complete designation of marine park.</li> <li>Release of Fish Fry at Artificial Reefs and Marine Park</li> </ul>								
	<ul> <li>Release of fish fry at the proposed ARs, as well as the proposed marine park under this study, should enhance the fish resources in the nearby waters, and subsequently food sources for Finless Porpoise. The proposed ARs with various micro-habitats would have the potential to provide shelter and nursery ground for the released fish fry. The frequency and quantity of fry to be released should be agreed by AFCD.</li> </ul>								

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

					Imple	ementa	tion S	tages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent		Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
8b.8.1.2	Measure to minimize loss of and disturbance on fisheries resources	IWMF site	Design to contractor	eam,	~	✓		<b>v</b>	EIAO-TM	N/A
	<ul> <li>Alteration to the phasing of works, construction method, and layout plan of the IWMF at the artificial island near SKC has been made. The total fishing ground to be permanently lost due to the project has been significantly reduced from ~50 ha to ~31 ha. By adopting the current circular cells instead of the conventional seawall construction method, SS elevation would be greatly reduced, minimizing adverse impact on the health of fisheries resources.</li> </ul>									
8b.8.1.3	Measure to minimize impingement and entrainment	IWMF site		eam, IWMF	~	~	✓		EIAO-TM	N/A
	<ul> <li>Provision of a screen at the water intake point for desalination plant would be essential to minimize the risk of impingement and entrainment of fisheries</li> </ul>									
	resources (including fish, larvae and egg) through the intake point.									

#### Table B.6 Implementation Schedule for Fisheries Measures for the IWMF at the artificial island near SKC

#### Keppel Seghers – Zhen Hua Joint Venture

		_				Imple	ementa	ation S	Stages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures		ation / ning	Implementation Agent		Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
8b.8.1.4- 8b.8.1.6	<ul> <li>Measures to control water quality</li> <li>No wastewater effluent, anti-fouling agent, heavy metals and other contaminants would be released during operation phase of the Project.</li> <li>Mitigation measures recommended in the water quality impact assessment during construction and operation would serve to protect fisheries resources from indirect</li> </ul>		site, IWMF	Design contractor, operator	team, IWMF	×		×	×	EIAO-TM	Implemented
8b.8.1.7 - 8b.8.1.8	<ul> <li>impacts resulted from the Project</li> <li><u>Additional Enhancement / Precautionary</u></li> <li><u>Measures</u></li> <li>Artificial Reefs (ARs) are proposed to be deployed within the proposed marine park under this Project as an enhancement measure for the marine habitats. This enhancement feature would bring positive impacts to the previously identified important spawning and nursery ground for fisheries resources.</li> <li>Release of Fish Fry at Artificial Reefs</li> <li>Release of fish fry has been proposed under this Project. The proposed deployment of ARs within the proposed marine park would provide shelter and nursery ground for the released fish fry. The frequency and quantity of fry to be released should be agreed by AFCD.</li> </ul>	betwee Islands Shek Chau	park waters n Soko	Project Proj	ponent			¥		EIAO-TM	N/A

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

							tages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
S10b.10 MLVC- 01	Grass-hydroseeded bare soil surface and stock pile area	Work site / During construction phase	Contractor		~				N/A
S10b.10 MLVC-02	<ol> <li>Landscape Design         <ol> <li>Early planting using fast grow trees and tall shrubs at strategic locations within site as buffer to block view corridors to the site from the VSRs, and to locally screen haul roads, excavation works and site preparation works.</li> <li>Use of tree species of dense tree crown to serve as visual barrier.</li> <li>Hard and soft landscape treatment (e.g. trees and shrubs) of open areas within development to provide a background for the outdoor containers from open view, shade and shelter, and a green appearance from surrounding viewpoints.</li> <li>Planting strip along the periphery of the project site.</li> <li>Selected tree species suitable for the coastal condition.</li> </ol> </li> </ol>	Work site / During design & construction phases	Contractor		✓				N/A

#### Table B.7 Implementation Schedule for Landscape and Visual Measures for the IWMF at the artificial island near SKC

### Keppel Seghers – Zhen Hua Joint Venture

				Implement	ation S	tages*	Relevant	Implementation
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des C	0	Dec	Legislation and Guidelines	Status and Remarks
S10b.10 MLVC-03	<ul> <li><u>Adoption of Natural Features of the Existing</u></li> <li><u>Shoreline</u></li> <li>1) Use of boulders in different sizes and with the similar textures of the existing rocky shores for the construction of breakwater and artificial shoreline in order to blend into the existing natural shoreline.</li> </ul>	Work site / During construction phase	Contractor					N/A
	2) Use of cellular cofferdam together with the natural boulders to form a curvature shoreline for the reclamation area to echo with the natural shoreline of SKC.							
S10b.10 MLVC-04	<ul> <li><u>Greening Design (Rooftop &amp; Vertical Greening)</u></li> <li>1) Implementation of rooftop and vertical greening (vertical building envelope) along the periphery of each building block to increase the amenity value of the work, moderate temperature extremes and enhance building energy performance. The greening appearance of the building shall enhance its visual harmony with the natural surroundings as well as reduce the apparent visual mass of the structure.</li> </ul>	Work site / During design & construction phases	Contractor					N/A
	<ol> <li>Sufficient space between concrete enclosure and stack to minimize heat transfer.</li> </ol>							
	3) Introduction of landscape decks at the stack to further enhance the overall natural and green concept unique for this site.							

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				Imple	ementa	ation S	tages*	Relevant	Implementation																		
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks																		
S10b.10 MVC-01	Visual Mitigation and Aesthetic Design	Structures	Contractor	~	✓				N/A																		
MVC-01	<ol> <li>Use of natural materials with recessive color to minimize the bulkiness of the building.</li> </ol>	in IWMF / During design & constructio n phases																									
	<ol> <li>Adoption of innovative aesthetic design to the chimney to minimize or visually mitigate the massing of the chimney so as to reduce its visual impact to the surroundings.</li> </ol>																										
	<ol> <li>Color of the chimney in a gradual changing manner to match with the color of the sky.</li> </ol>																										
	<ol> <li>Provision of observation deck for public enjoyment at the top of the chimney to diminish the feeling of chimney.</li> </ol>																										
	<ul> <li>5) Provision of sky gardens between the two stacks to allow additional greening for enhancing the aesthetic quality. Maintenance access (elevator and staircase) from the ground floor to the sky gardens will be provided to allow maintenance of the sky gardens.</li> </ul>																										
	<ol> <li>Integration of the visitor's walkway with different material façade design of incinerator plant to enhance the aesthetic quality.</li> </ol>																										
S10b.10 MVC-02	Control of the security floodlight for construction areas at night to avoid excessive glare to the surrounding receiver.	Work site / During construction phase	Contractor		✓				Implemented																		

	Environmental Protection Measures / Mitigation Measures			Implem	nenta	tion S	tages*	Relevant	Implementation
EIA Ref		Location / Timing	Implementation Agent	Des	С	0	Dec	Legislation and Guidelines	Status and Remarks
S10b.10 MVC-03	Optimization of the construction sequence and construction programme to minimize the duration of impact.	Work site / During design & construction phases	Contractor	~	✓				Implemented
S10b.10 MVC-04	Storage of the backfilling materials for site formation & construction materials / wastes on site at a maximum height of 2m, covered with an impermeable material of visually un- obtrusive material (in earth tone).	Work site / During construction phase	Contractor		<				N/A
S10b.10 MVC-05	Reduction of the number of construction traffic at the site to practical minimum.	Work site / During construction phase	Contractor		✓				Implemented
S10b.10 MLVO-01	Planting Maintenance Provision of proper planting maintenance and replacement of defective plant species on the new planting areas to enhance aesthetic and landscape quality.	Project site / During Operation phase	Contractor			~			N/A
S10b.10 MVO-01	Environmental Education Centre Development of an Environmental Education Center, in which regular exhibitions and lectures to promote environmental awareness and waste reduction concept would be provided, as a part of the IWMF for the general public to alleviate negative public perceptions of the development.	Project site / During Operation phase	Contractor			~			N/A
S10b.10 MVO-02	<u>Control of Light</u> Control the numbers of lights and their intensity to a level that is good enough to meet the safety requirements at night but not excessive.	Project site / During Operation phase	Contractor			✓			N/A

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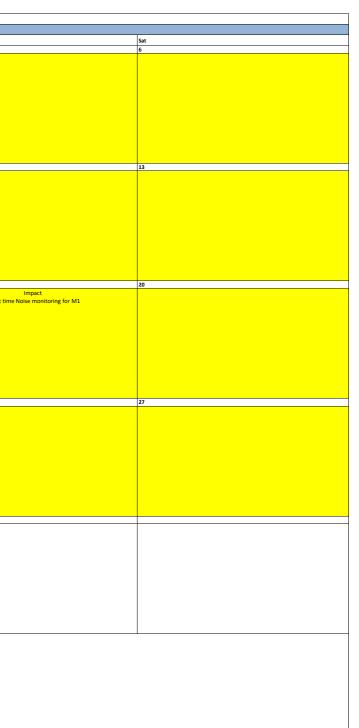
EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Imple Des	ementa C	tion S O	Stages* Dec	Relevant Legislation and Guidelines	Implementation Status and Remarks
S10b.10 MVO-03	Control of Operation Time	Project site / Durina	Contractor			√			N/A
1010000	Minimization of the frequency of waste	Operation							
	transportation to practical minimum (e.g. limit	phase							
	the reception of MSW from 8 am to 8 pm)	•							

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

# Appendix C Impact Monitoring Schedule of the Reporting Month

				Impact Monitoring Schedule for IWMF		
Image: Second			Τ		I	T
Image: Section of the section of t	Sun	Mon	Tue	Wed		Fri
Image: Second		1	2	3	-	5
Image: set of the set of th			Impact Daytime & Evening Noise monitoring for M1_M2 & M3	Impact Night time Noise monitoring for M1_M2 & M3	Impact Ecology monitoring for WRSE	
Implementation         Impleme			Daytime & Evening Noise monitoring for Mit, W2 & W3	Night time Noise monitoring for Mit, Miz & Mis	Ecology monitoring for WBSE	
Implementation         Impleme						
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Image: second	7	8	9	10	11	12
Image: second		Impact Douting & Supping Noise monitoring for M1_M2 & M3	Impact Night time Noice monitoring for M1_M2 & M2		Impact Ecology monitoring for WIRSE	
Description     Description     Description     Description     Description     Description     Description       11     22     regard     23     regard     44     25     regard     26       12     trapped     trapped     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M2, M3     Maget time Noise monitoring for M1     26     26       11     Vigit time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M3, M2 & M3     Maget time Noise monitoring for M3, M2 & M3     Maget time Noise monitoring for M3, M2 & M3     Maget time Noise monitoring for M3, M2 & M3     Maget time Noise monitoring for M3, M2 & M3     Maget time Noise monitoring for M3, M2 & M3     Maget time Noise monitoring for M3, M2 & M3     Maget time Noise monit		Daytime & Evening Noise Monitoring for Mi1, Mi2 & Mi3	Night time Noise monitoring for M1, M2 & M3		Ecology monitoring for WBSE	
Description     Description     Description     Description     Description     Description     Description       11     22     regard     23     regard     44     25     regard     26       12     trapped     trapped     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M2, M3     Maget time Noise monitoring for M1     26     26       11     Vigit time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M1, M2 & M3     Maget time Noise monitoring for M3, M2 & M3     Maget time Noise monitoring for M3, M2 & M3     Maget time Noise monitoring for M3, M2 & M3     Maget time Noise monitoring for M3, M2 & M3     Maget time Noise monitoring for M3, M2 & M3     Maget time Noise monitoring for M3, M2 & M3     Maget time Noise monitoring for M3, M2 & M3     Maget time Noise monit						
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Remarks: 1. Daytime Noise Monitoring (07:00-1900), Evening Time Noise Monitoring (1900-2300), Night Time Noise Monitoring (2300-0700) 2. Water Quality Monitoring for 51,52 and 53 will only conduct during DCM works, refer to Detailed DCM Plan 3. No marine construction work is tentatively scheduled to be carried out in January 2024



Appendix D Event / Action Plan for Water Quality Exceedance

Event	Action				
	ET	IEC	SO	Contractor	
Action level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Repeat measurement on next day of exceedance. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the SO accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the SO and confirm notification of the non- compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and SO within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	
Action level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; Repeat measurement on next working day of exceedance. (The above actions should be taken within 1 working day after Action Level being exceeded by two consecutive sampling days)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the SO accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after Action Level being exceeded by two consecutive sampling days)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented. Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after Action Level being exceeded by two consecutive sampling days)	Inform the SO and confirm notification of the non- compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and SO within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after Action Level being exceeded by two consecutive sampling days)	

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Event		Ac	tion	
	ET	IEC	SO	Contractor
Limit level	Inform the SO and confirm	Discuss with ET and	Discuss with IEC, ET and	Inform the SO and confirm
being exceeded	notification of the non-	Contractor on the mitigation	Contractor on the proposed	notification of the non-
by one	compliance in writing;	measures;	mitigation measures;	compliance in writing;
sampling day	Rectify unacceptable practice;	Review proposals on	Request Contractor to	Rectify unacceptable practice;
	Check all plant and	mitigation measures submitted	critically review the working	Check all plant and
	equipment;	by Contractor and advise the	methods;	equipment;
	Consider changes of working	SO accordingly;	Make agreement on the	Consider changes of working
	methods;	Assess the effectiveness of	mitigation measures to be	methods;
	Discuss with Contractor, IEC	the implemented mitigation	implemented.	Discuss with ET, IEC and SO
	and SO and propose	measures.	Assess the effectiveness of	and propose mitigation
	mitigation measures to IEC	(The above actions should be	the implemented measures.	measures to IEC and SO
	and SO within 3 working days;	taken within 1 working day	(The above actions should be	within 3 working days;
	Implement the agreed	after the exceedance is	taken within 1 working day	Implement the agreed
	mitigation measures.	identified)	after the exceedance is	mitigation measures.
	(The above actions should be		identified)	(The above actions should be
	taken within 1 working day			taken within 1 working day
	after the exceedance is			after the exceedance is
	identified)			identified)

Event	Action					
	ET	IEC	SO	Contractor		
Limit level	Identify source(s) of impact;	Discuss with ET and	Discuss with IEC, ET and	Inform the SO and confirm		
being exceeded	Inform IEC, Contractor and	Contractor on the mitigation	Contractor on the proposed	notification of the non-		
by more than	EPD;	measures;	mitigation measures;	compliance in writing;		
one	Check monitoring data, all	Review proposals on	Request Contractor to	Rectify unacceptable practice;		
consecutive	plant, equipment and	mitigation measures submitted	critically review the working	Check all plant and		
sampling days	Contractor's working methods.	by Contractor and advise the	methods;	equipment;		
	Discuss mitigation measures	SO accordingly;	Make agreement on the	Consider changes of working		
	with IEC, SO and Contractor.	Assess the effectiveness of	mitigation measures to be	methods;		
	Ensure mitigation measures	the implemented mitigation	implemented.	Discuss with ET, IEC and SO		
	are implemented;	measures.	Assess the effectiveness of	and propose mitigation		
	Increase the monitoring	(The above actions should be	the implemented measures.	measures to IEC and SO		
	frequency to daily until no	taken within 1 working day	Consider and instruct, if	within 3 working days;		
	exceedance of Limit level for	after Limit Level being	necessary, the Contractor to	Implement the agreed		
	two consecutive days.	exceeded by two consecutive	slow down or to stop all or part	mitigation measures;		
	(The above actions should be	sampling days)	of the marine work until no	As directed by the SOR, to		
	taken within 1 working day		exceedance of Limit level.	slow down or to stop all or part		
	after Limit Level being		(The above actions should be	of the marine work or		
	exceeded by two consecutive		taken within 1 working day	construction activities.		
	sampling days)		after Limit Level being	(The above actions should be		
			exceeded by two consecutive	taken within 1 working day		
			sampling days)	after Limit Level being		
				exceeded by two consecutive		
				sampling days)		

# Appendix E Noise Monitoring Equipment Calibration Certificate

# Certificate of Calibration

## for

Description:	Sound Level Meter
Manufacturer:	SVANTEK
Type No.:	971 (Serial No.: 96062)
Microphone:	13905
Preamplifier:	SVANTEK SV 18 (Serial No.:C132231)

## Submitted by:

Customer:	Acuity Sustainability Consulting Limited
Address:	Unit E, 12/F., Ford Glory Plaza,
	Nos. 37-39 Wing Hong Street,
	Cheung Sha Wan, Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

✓ Within (31.5Hz − 8kHz)□ Outside

### the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 27 July 2023

Date of calibration: 3 August 2023

Date of NEXT calibration: 2 August 2024

Calibrated by: Calibration Technician

Date of issue: 3 August 2023

Certificate No.: APJ23-049-CC001

Certified by:

Mr. Ng Yan Wa Laboratory Manager



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## 1. Calibration Precaution:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

## 2. Calibration Conditions:

Air Temperature:	22.6 ° <b>C</b>
Air Pressure:	1006 <b>hPa</b>
<b>Relative Humidity:</b>	52.9 %

### 3. Calibration Equipment:

	Туре	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV220061	HOKLAS

## 4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
25.0-124.2	dBA	SPL	Fast	94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. V	Veighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
				94		94.0	Ref
25.0-124.2	dBA	SPL	Fast	104	1000	104.0	±0.3
			114	1	114.0	±0.3	

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB Freq. Weighting Time Weighting		Level, dB	Frequency, Hz	dB	Specification, dB		
25.0.124.2		CDI	Fast	0.1	1000	94.0	Ref
25.0-124.2	dBA SPL		Slow	94	1000	94.0	±0.3

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Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. '	Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	94.3	±2.0
					63	94.2	±1.5
					125	94.1	±1.5
					250	94.1	±1.4
25.0-124.2	dB	B SPL	Fast	94	500	94.0	±1.4
					1000	94.0	Ref
					2000	93.7	±1.6
					4000	93.1	±1.6
					8000	91.9	+2.1; -3.1

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Level, dB Frequency, Hz		Specification, dB
					31.5	55.3	-39.4 ±2.0
			63	68.2	$-26.2 \pm 1.5$		
			Fast	94	125	78.0	-16.1±1.5
					250	85.4	-8.6±1.4
25.0-124.2	dBA SPL	SPL			500	90.8	$-3.2 \pm 1.4$
					1000	94.0	Ref
					2000	94.9	$+1.2 \pm 1.6$
					4000	94.1	$+1.0 \pm 1.6$
					8000	90.9	-1.1+2.1; -3.1

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	91.3	-3.0 ±2.0
					63	93.3	$-0.8 \pm 1.5$
				94	125	93.9	$-0.2 \pm 1.5$
					250	94.0	$-0.0 \pm 1.4$
25.0-124.2	dBC SH	SPL	Fast		500	94.0	$-0.0 \pm 1.4$
					1000	94.0	Ref
					2000	93.6	$-0.2 \pm 1.6$
					4000	92.4	$-0.8 \pm 1.6$
					8000	89.1	-3.0 +2.1: -3.1

Certificate No.: APJ23-049-CC001



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## 5. Calibration Results Applied

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.05
	63 Hz	± 0.05
	125 Hz	± 0.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
	8000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:

The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.



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Certificate No.: APJ23-049-CC001

# Certificate of Calibration

## for

Description:	Sound Level Meter
Manufacturer:	SVANTEK
Type No.:	971 (Serial No.: 96063)
Microphone:	ACO 7052E (Serial No.:79778)
Preamplifier:	SVANTEK SV 18 (Serial No.:97276)

## Submitted by:

Customer:	Acuity Sustainability Consulting Limited
Address:	Unit E, 12/F., Ford Glory Plaza,
	Nos. 37-39 Wing Hong Street,
	Cheung Sha Wan, Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

✓ Within (31.5Hz – 8kHz)□ Outside

#### the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 27 July 2023

Date of calibration: 3 August 2023

Date of NEXT calibration: 2 August 2024

Calibrated by: **Calibration** Technician

Date of issue: 3 August 2023

Certificate No.: APJ23-049-CC002

Certified by:

Mr. Ng Yan Wa Laboratory Manager

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# (A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

## 1. Calibration Precaution:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

## 2. Calibration Conditions:

Air Temperature:	22.6 °C
Air Pressure:	1006 <b>hPa</b>
<b>Relative Humidity:</b>	52.9 %

## 3. Calibration Equipment:

	Туре	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV220061	HOKLAS

## 4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq.	Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
25.0-124.2	dBA	SPL	Fast	94	1000	93.7	±0.4

Linearity

Sett	ing of U	nit-under-t	est (UUT)	Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq.	Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
				94		93.7	Ref
25.0-124.2	dBA	SPL	Fast	104	1000	103.7	±0.3
				114		113.7	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. V	Veighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
25.0-124.2	dBA	SPL	Fast	94	1000	93.7	Ref
23.0-124.2	UDA	SFL	Slow	94	1000	93.7	±0.3

Certificate No.: APJ23-049-CC002



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Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

Frequency Response

#### Linear Response

Sett	Setting of Unit-under-test (UUT)			Appl	ied value	UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	94.3	±2.0
					63	94.2	±1.5
					125	94.1	±1.5
					250	94.1	±1.4
25.0-124.2	dB	SPL	Fast	94	500	94.0	±1.4
					1000	93.7	Ref
					2000	93.7	±1.6
					4000	95.1	±1.6
					8000	91.4	+2.1: -3.1

A-weighting

Setting of Unit-under-test (UUT)				Appl	Applied value		IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	55.0	-39.4 ±2.0
					63	68.1	$-26.2 \pm 1.5$
					125	78.1	-16.1±1.5
					250	85.4	-8.6±1.4
25.0-124.2	dBA	SPL	Fast	94	500	90.7	$-3.2 \pm 1.4$
					1000	93.7	Ref
					2000	94.9	$+1.2 \pm 1.6$
					4000	96.2	$+1.0\pm1.6$
					8000	90.5	-1.1+2.1; -3.1

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. V	Veighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	91.3	-3.0 ±2.0
					63	93.4	$-0.8 \pm 1.5$
					125	94.0	$-0.2 \pm 1.5$
					250	94.8	$-0.0 \pm 1.4$
25.0-124.2	dBC	SPL	Fast	94	500	94.0	$-0.0 \pm 1.4$
					1000	93.7	Ref
					2000	93.5	$-0.2 \pm 1.6$
					4000	94.4	$-0.8 \pm 1.6$
					8000	88.6	-3.0 +2.1: -3.1

Certificate No.: APJ23-049-CC002



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# (A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

## 5. Calibration Results Applied

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.05
	125 Hz	± 0.05
	250 Hz	± 0.10
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
	8000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:

The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.



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Certificate No.: APJ23-049-CC002

# **Certificate of Calibration**

for

Description:	Sound Level Meter
Manufacturer:	Svantek
Type No.:	971 (Serial No.: 103449)
Microphone:	ACO 7052E (Serial No.: 78092)
Preamplifier:	SV 18 (Serial No.:78763)

## Submitted by:

Customer: Acuity Sustainability Consulting Limited Address: Unit E, 12/F, Ford Glory Plaza, Nos. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong

# Upon receipt for calibration, the instrument was found to be:

☑ Within (31.5Hz – 8kHz) □ Outside

#### the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 2 February 2023

Date of calibration: 6 February 2023

Date of NEXT calibration: 5 February 2024

Calibrated by:

Calibration Technician

Date of issue: 6 February 2023

Certificate No.: APJ22-136-CC001

Certified by:

Mr. Ng Yan Wa Laboratory Manager

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# (A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

## 1. Calibration Precaution:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

## 2. Calibration Conditions:

Air Temperature:	23.9°C
Air Pressure:	1006 hPa
<b>Relative Humidity:</b>	47.9 %

# 3. Calibration Equipment:

	Туре	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV220061	HOKLAS

## 4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Арр	Applied value		IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	vonest.	Specification, dB
25-124.3	dBA	SPL	Fast	94	1000	94.0	$\pm 0.4$

Linearity

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class		
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz		Specification, dB	
25.124.2				94		94.0	Ref	
25-124.3	dBA	SPL	A SPL	dBA SPL Fast	104	1000	104.0	±0.3
				114		114.0	±0.3	

Time Weighting

Sett	ing of Ur	iit-under-t	est (UUT)	Appl	lied value	UUT Reading.	IEC 61672 Class 1
Range, dB	Freq. V	Veighting	Time Weighting	Level, dB	Frequency, Hz		Specification, dB
25-124.3	dBA	SPL	Fast	0.4	1000	94.0	Ref
	ubA	51 L	Slow	94	1000	94.0	+0.3

Certificate No.: APJ22-136-CC001



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# (A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

# Frequency Response

## Linear Response

Sett	Setting of Unit-under-test (UUT)				ied value	UUT Reading	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz		Specification, dB
					31.5	94.2	±2.0
					63	94.1	±1.5
			125	94.1	±1.5		
25-124.3	25.12.1.2		Fast		250	94.1	±1.4
25-124.3	dB	SPL		94	500	94.0	±1.4
					1000	94.0	Ref
					2000	93.9	±1.6
		s	· · · · · · · · ·		4000	93.6	±1.6
					8000	90.9	+2.1: -3.1

A-weighting

Sett	Setting of Unit-under-test (UUT)			Appl	ied value	UUT Reading.	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz		Specification, dB
					31.5	54.8	$-39.4 \pm 2.0$
					63	68.0	$-26.2 \pm 1.5$
	25.124.2			94	125	78.0	-16.1±1.5
25-124.3					250	85.4	-8.6±1.4
23-124.5	dBA	SPL	Fast		500	90.8	$-3.2 \pm 1.4$
					1000	94.0	Ref
					2000	95.1	$+1.2\pm1.6$
					4000	94.6	$+1.0 \pm 1.6$
					8000	90.0	-1.1+2.1; -3.1

C-weighting

Setting of Unit-under-test (UUT)			Appl	ied value	UUT Reading.	IEC 61672 Class	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz		Specification, dE
					31.5	91.2	$-3.0\pm 2.0$
			63	93.3	-0.8±1.5		
				125	93.9	$-0.2 \pm 1.5$	
	IDC		Fast	94	250	94.0	$-0.0 \pm 1.4$
25-124.3	dBC	SPL			500	94.1	$-0.0 \pm 1.4$
					1000	94.0	Ref
					2000	93.7	$-0.2 \pm 1.6$
					4000	92.9	-0.8±1.6
					8000	88.1	-3.0 +2.1: -3.1

Certificate No.: APJ22-136-CC001



# (A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

## 5. Calibration Results Applied

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.05
	125 Hz	± 0.05
	250 Hz	± 0.10
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
	8000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:

The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.



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Certificate No.: APJ22-136-CC001

# **Certificate of Calibration**

### for

Description:	Sound Level Meter
Manufacturer:	RION
Type No.:	NL-52 (Serial No.: 01010876)
Microphone:	UC-59 (Serial No.: 24122)
Preamplifier:	NH-25 (Serial No.:11524)

### Submitted by:

Customer: Acuity Sustainability Consulting Limited Address: Unit E, 12/F, Ford Glory Plaza, Nos. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon,

Upon receipt for calibration, the instrument was found to be:

☑ Within (31.5Hz – 8kHz) □ Outside

### the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 13 December 2023

Date of calibration: 14 December 2023

Date of NEXT calibration: 13 December 2024

Calibrated by: _________ Calibration Technician

Date of issue: 14 December 2023

Certificate No.: APJ23-118-CC001

Certified by:

Mr. Ng Yan Wa Laboratory Manager



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# (A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

## 1. Calibration Precaution:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

## 2. Calibration Conditions:

Air Temperature:	25.9°C
Air Pressure:	1007 <b>hPa</b>
<b>Relative Humidity:</b>	59.8 %

# 3. Calibration Equipment:

	Туре	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV220061	HOKLAS

## 4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Appl	Applied value		IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB Frequency, Hz			Specification, dB
30-130	dBA	SPL	Fast	94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)			App	lied value	UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. V	Veighting	Time Weighting	Level, dB			Specification, dB
				94		94.0	Ref
30-130	dBA	SPL	Fast	104	1000	104.0	±0.3
				114		114.0	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB			Specification, dB
30-130	dBA	SPL	Fast	94	1000	94.0	Ref
	ubri	51 L	Slow	94	1000	94.0	±0.3

Certificate No.: APJ23-118-CC001



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# (A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

### Frequency Response

#### Linear Response

Sett	Setting of Unit-under-test (UUT)				ied value	UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	94.0	±2.0
					63	94.2	±1.5
			125	94.2	±1.5		
			250	94.1	±1.4		
30-130	dB	SPL	Fast	94	500	94.1	±1.4
					1000	94.0	Ref
					2000	93.5	±1.6
				4000	92.5	±1.6	
					8000	90.9	+2.1; -3.1

A-weighting

Sett	Setting of Unit-under-test (UUT)				ied value	UUT Reading,	IEC 61672 Class 1
Range, dB	Freq.	Weighting	Time Weighting	Level, dB			Specification, dB
					31.5	54.6	-39.4 ±2.0
					63	68.0	-26.2±1.5
			125	78.1	-16.1±1.5		
			250	85.5	-8.6±1.4		
30-130	dBA	SPL	Fast	94	500	90.9	$-3.2 \pm 1.4$
					1000	94.0	Ref
					2000	94.7	$+1.2 \pm 1.6$
					4000	93.5	$+1.0 \pm 1.6$
					8000	89.8	-1.1+2.1; -3.1

C-weighting

Sett	ing of Uni	t-under-t	est (UUT)	Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	91.2	-3.0 ±2.0
					63	93.4	-0.8 ±1.5
					125	94.1	$-0.2 \pm 1.5$
					250	94.2	$-0.0 \pm 1.4$
30-130	dBC SPL	SPL	Fast	94	500	94.2	$-0.0 \pm 1.4$
					1000	94.0	Ref
					2000	93.4	-0.2 ±1.6
					4000	91.8	-0.8 ±1.6
					8000	87.9	-3.0 +2.1: -3.1

Certificate No.: APJ23-118-CC001



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## 5. Calibration Results Applied

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.10
	125 Hz	± 0.10
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.10
	4000 Hz	± 0.05
	8000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:

The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.



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Certificate No.: APJ23-118-CC001

# Certificate of Calibration

### for

Description:	Sound Level Meter
Manufacturer:	RION
Type No.:	NL-52 (Serial No.: 01010877)
Microphone:	UC-59 (Serial No.: 20521)
Preamplifier:	NH-25 (Serial No.: 11525)

## Submitted by:

Customer:	Acuity Sustainability Consulting Limited
Address:	Unit E, 12/F, Ford Glory Plaza,
	Nos. 37-39 Wing Hong Street,
	Cheung Sha Wan, Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

✓ Within (31.5Hz − 2kHz)□ Outside

#### the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 16 March 2023

Date of calibration: 21 March 2023

Date of NEXT calibration: 20 March 2024

Calibrated by: Calibration Technician

Date of issue: 21 March 2023

Certificate No.: APJ22-158-CC001

Certified by:_

Mr. Ng Yan Wa Laboratory Manager



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Room 422, Leader Industrial Centre, 57-59 Au Pui Wan Street, Fo	Tan, Shatin, N.T., Hong Kong
Tel: (852) 2668 3423	Fax:(852)26686946
Homepage: http://www.aa-lab.com	E-mail: inquiry@aa-lab.com

# (A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

## 1. Calibration Precaution:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

## 2. Calibration Conditions:

Air Temperature:	22.0 °C
Air Pressure:	1004 <b>hPa</b>
<b>Relative Humidity:</b>	62.4 %

## 3. Calibration Equipment:

	Туре	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV220061	HOKLAS

## 4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			App	ied value	UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA	SPL	Fast	94	1000	93.9	±0.4

Linearity

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq.	Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
				94		93.9	Ref
30-130	dBA	SPL	Fast	104	1000	103.9	±0.3
				114		113.9	±0.3

Time Weighting

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA	SPL	Fast	94	1000	93.9	Ref
50-150	uDA	SPL	Slow	94	1000	93.9	±0.3

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Frequency Response

Linear Response

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. We	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	94.0	±2.0
					63	94.1	±1.5
					125	94.1	±1.5
30-130	30-130 dB SPL	Fast	94	250	94.1	±1.4	
					500	94.0	±1.4
					1000	93.9	Ref
					2000	93.3	±1.6

A-weighting

Setting of Unit-under-test (UUT)				Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. V	Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
					31.5	54.5	-39.4 ±2.0
					63	67.9	-26.2 ±1.5
					125	78.0	-16.1±1.5
30-130	30-130 dBA SPL	SPL	Fast	94	250	85.5	$-8.6 \pm 1.4$
					500	90.8	$-3.2 \pm 1.4$
					1000	93.9	Ref
					2000	94.6	$+1.2\pm1.6$

C-weighting

Setting of Unit-under-test (UUT)			Appl	ied value	UUT Reading,	IEC 61672 Class 1	
Range, dB	Freq. W	eighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
	dBC SPL			31.5	91.0	-3.0 ±2.0	
				63	93.3	$-0.8 \pm 1.5$	
			Fast	94	125	93.9	$-0.2 \pm 1.5$
30-130		SPL			250	94.1	$-0.0 \pm 1.4$
				500	94.0	$-0.0 \pm 1.4$	
				1000	93.9	Ref	
					2000	93.2	$-0.2 \pm 1.6$



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Certificate No.: APJ22-158-CC001

# (A+A)*L Acoustics and Air Testing Laboratory Co. Ltd. 聲學及空氣測試實驗室有限公司

## 5. Calibration Results Applied

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.10
	125 Hz	± 0.10
	250 Hz	± 0.10
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:

The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.



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Certificate No.: APJ22-158-CC001



# Certificate of Calibration

for

Description:	Sound Level Calibrator		
Manufacturer:	RION		
Type No.:	NC-75		
Serial No.:	35124527		

## Submitted by:

Customer: Acuity Sustainability Consulting Limited Address: Unit E, 12/F, Ford Glory Plaza, Nos. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong

#### Upon receipt for calibration, the instrument was found to be:

$\checkmark$	Within
	Outside

#### the allowable tolerance.

The test equipments used for calibration are traceable to National Standards via:

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 19 October 2023

Date of calibration: 27 October 2023

Date of NEXT calibration: 26 October 2024

Calibrated by: Calibration Technician

Certified by: Mr. Ng Yan Wa

Date of issue: 27 October 2023

Mr. Ng Yan Wa Laboratory Manager



Certificate No.: APJ23-090-CC002

Page 1 of 2



## 1. Calibration Precautions:

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

## 2. Calibration Specifications:

Calibration check

## 3. Calibration Conditions:

24.4 °C
1013 hPa
<u>65.4</u> %

## 4. Calibration Equipment:

Test Equipment	Туре	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV220061	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV220120	HOKLAS

### 5. Calibration Results

#### 5.1 Sound Pressure Level

Nominal value dB			Measured value dB	
94.0	93.6	94.4	94.0	

Note:

The values given in this certification only related to the values measured at the time of the calibration.



Certificate No.: APJ23-090-CC002

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# Appendix F Event / Action Plan for Noise Exceedance

Event Action	Actions to be taken by Environmental Team as immediate as practicable	Actions to be taken by Independent Environmental Checker as immediate as practicable 1. Review the investigation results	Actions to be taken by Supervising Officer's Representative as immediate as practicable 1. Confirm receipt of notification of	Actions to be taken by Contractor as immediate as practicable 1. Submit noise mitigation
Level being exceeded	2. Carry out investigation;	<ul> <li>submitted by the ET;</li> <li>Review the proposed remedial measures by the Contractor and advise the SO accordingly;</li> <li>Advise the SO on the effectiveness of the proposed remedial</li> </ul>	failure in writing;	<ul> <li>proposals to IEC and SO;</li> <li>Implement noise mitigation proposals.</li> <li>(The above actions should be taken within 2 working days after the exceedance is identified)</li> </ul>
exceeded	<ol> <li>Inform IEC, SO, Contractor and EPD;</li> <li>Repeat measurements to confirm findings;</li> <li>Increase monitoring frequency;</li> <li>Identify source and investigate the cause of exceedance;</li> <li>Carry out analysis of Contractor's working procedures;</li> <li>Discuss with the IEC, Contractor and SO on remedial measures required;</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and SO informed of the results;</li> <li>If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)</li> </ol>	<ol> <li>Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the SO accordingly. (The above actions should be taken within 2 working days after</li> </ol>	<ol> <li>In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>Supervise the implementation of</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to IEC and SO within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Submit further proposal if problem still not under control;</li> <li>Stop the relevant portion of works as instructed by the SO until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)</li> </ol>

Appendix G Noise Monitoring Data

Location:	Shek Kwu Chau Treatment & Rehabilitation Centre Hostel 1 (M1 / N_S1)
Monitoring date:	02, 08, 18, 24 January 2024 (Daytime)
	02&03, 08&09, 18&19 and 24&25 January 2024 (Evening & Night time)
Parameter :	Leq 30min (Daytime), Leq 5min (Evening & Night time)
Noise source other than construction activities from the Project:	Nil

Date	Start time		End time	Weather	$\frac{L_{eq\;30min}dB(A)}{L_{eq\;5min}dB(A)}$	Sound Level Meter Used	Calibrator Used	
02 Jan 2024	13:46	-	14:16	Sunny	57.8	SVAN 971 (Serial No. 96062)	Rion NC-75 (No.35124527)	
0.0 1	19:11	-	19:16		55.4		D: NG 75	
02 Jan	20:26	-	20:31	Fine	48.6	SVAN 971 (Serial	Rion NC-75	
2024	21:11	-	21:16		53.6	No. 96062)	(No.35124527)	
02 1	1:21	-	1:26		39.9	QUANO71 (Carial	Dian NO 75	
03 Jan 2024	3:06	-	3:11	Fine	38.1	SVAN 971 (Serial	Rion NC-75	
2024	5:11	-	5:16		41.3	No. 96062)	(No.35124527)	
08 Jan 2024	13:34	-	14:04	Sunny	59.5	SVAN 971 (Serial No. 96062)	Rion NC-75 (No.35124527)	
09 Iam	19:09	-	19:14		49.9	SVAN 071 (Carial	Dian NC 75	
08 Jan 2024	20:29	-	20:34	Fine	47.1	SVAN 971 (Serial	Rion NC-75	
2024	21:09	-	21:14		48.0	No. 96062)	(No.35124527)	
00 Iam	1:14	-	1:19		47.6	SVAN 071 (Carial	Dian NC 75	
09 Jan 2024	3:14	-	3:19	Fine	42.0	SVAN 971 (Serial No. 96062)	Rion NC-75 (No.35124527)	
2024	5:14	-	5:19		39.2	NO. 90002)	(10.33124327)	
18 Jan 2024	13:28	-	13:58	Sunny	59.8	SVAN 971 (Serial No. 96063)	Rion NC-75 (No.35124527)	
10 Ian	19:13	-	19:18		52.0	SVAN 071 (Carial	Dian NC 75	
18 Jan 2024	20:18	-	20:23	Fine	50.2	SVAN 971 (Serial	Rion NC-75 (No.35124527)	
2024	21:28	-	21:33		47.5	No. 96063)	(10.55124527)	
10 I.u.	1:23	-	1:28		50.4	GVAN 071 (Carial	Diam N/C 75	
19 Jan 2024	3:13	-	3:18	Fine	50.2	SVAN 971 (Serial No. 96063)	Rion NC-75 (No.35124527)	
2024	5:13	-	5:18		49.3	INO. 90003)	(10.55124527)	
24 Jan 2024	13:24	-	13:54	Fine	60.3	RION NL-52 (Serial No. 1010877)	Rion NC-75 (No.35124527)	
24 1.00	19:14	-	19:19		52.3	RION NL-52	Dian NC 75	
24 Jan 2024	20:14	-	20:19	Fine	54.6	(Serial No.	Rion NC-75	
2024	21:14	-	21:19		50.4	1010877)	(No.35124527)	
25 Jan	1:14	-	1:19		42.8	RION NL-52	Dian NC 75	
25 Jan 2024	3:14	-	3:19	Fine	38.8	(Serial No.	Rion NC-75	
2024	5:14	-	5:19		38.5	1010877)	(No.35124527)	

Noise Monitoring Data:

Location:	Shek Kwu Chau Treatment & Rehabilitation Centre Hostel 2 (M2 / N_S2)
Monitoring date:	02, 08, 17, 24 January 2024 (Daytime)
	02&03, 08&09, 17&18 and 24&25 January 2024 (Evening & Night time)
Parameter :	Leq 30min (Daytime), Leq 5min (Evening & Night time)
Noise source other than construction activities from the Project:	Nil

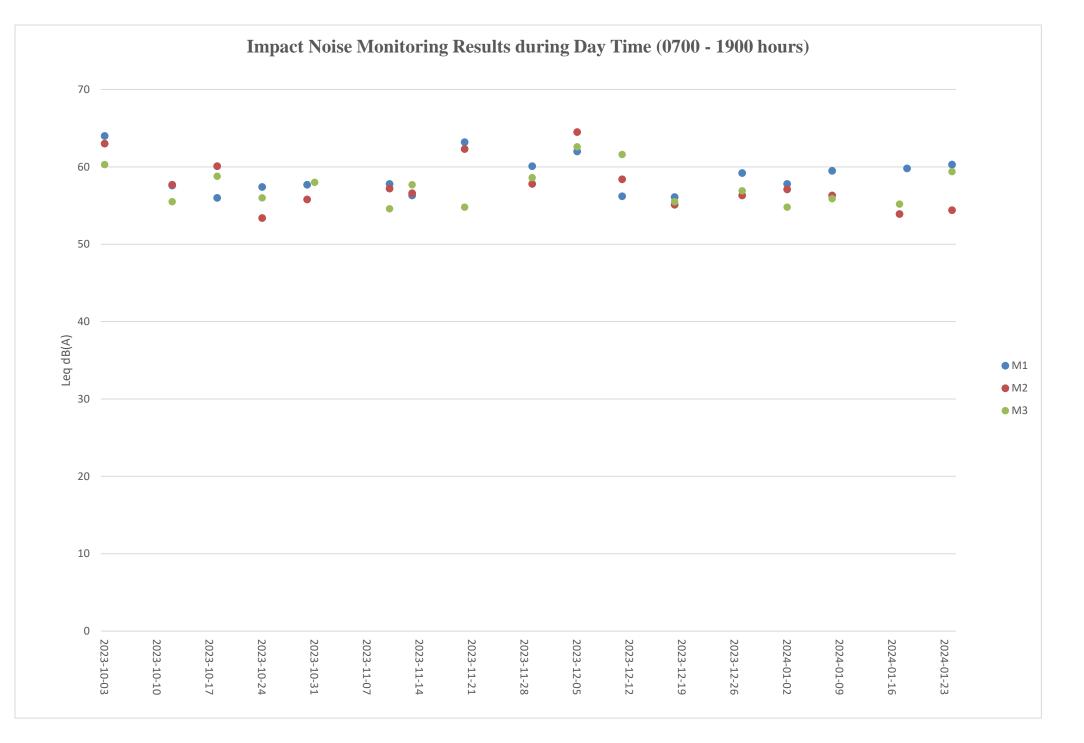
Date	Start time		End time	Weather	L _{eq 30min} dB(A) / L _{eq 5min} dB(A)	Sound Level Meter Used	Calibrator Used	
02 Jan 2024	13:47	-	14:17	Sunny	57.1	SVAN 971 (Serial No. 103449)	Rion NC-75 (No.35124527)	
02.1	19:12	-	19:17		56.6		D: NO 75	
02 Jan	20:27	-	20:32	Fine	49.5	SVAN 971 (Serial	Rion NC-75	
2024	21:12	-	21:17		54.8	No. 103449)	(No.35124527)	
02.1	1:22	-	1:27		46.7		D: NG 75	
03 Jan	3:07	-	3:12	Fine	43.9	SVAN 971 (Serial	Rion NC-75	
2024	5:12	-	5:17		44.9	No. 103449)	(No.35124527)	
08 Jan 2024	13:44	-	14:14	Sunny	56.3	SVAN 971 (Serial No. 103449)	Rion NC-75 (No.35124527)	
08 Jan	19:14	1	19:19		49.1	SVAN 071 (Seriel	Rion NC-75	
2024	20:29	1	20:34	Fine	48.1	SVAN 971 (Serial No. 103449)	(No.35124527)	
2024	21:09	1	21:14		47.7	100.103449)	(10.55124527)	
09 Jan	1:14	1	1:19		45.0	SVAN 971 (Serial	Rion NC-75	
2024	3:09	-	3:14	Fine	43.6	No. 103449)	(No.35124527)	
2024	5:14	-	5:19		43.0	NO. 103449)	(140.33124327)	
17 Jan 2024	13:33	-	14:03	Sunny	53.9	SVAN 971 (Serial No. 96063)	Rion NC-75 (No.35124527)	
17 Ian	19:13	-	19:18		49.4	SVAN 071 (Seriel	Diam NC 75	
17 Jan 2024	20:08	-	20:13	Fine	47.7	SVAN 971 (Serial No. 96063)	Rion NC-75 (No.35124527)	
2024	21:28	1	21:33		47.6	NO. 90003)	(10.55124527)	
10 I	1:23	-	1:28		43.6	$\mathbf{GVAN} = 0.71 (0 \cdot 0.71)$	Diam NC 75	
18 Jan 2024	3:13	-	3:18	Fine	43.5	SVAN 971 (Serial No. 96063)	Rion NC-75 (No.35124527)	
2024	5:13	-	5:18		45.7	INO. 90003)	(10.55124527)	
24 Jan 2024	13:40	-	14:10	Fine	54.4	SVAN 971 (Serial No. 96063)	Rion NC-75 (No.35124527)	
24 Jan	19:15	-	19:20		52.2	SVAN 971 (Serial	Rion NC-75	
24 Jan 2024	20:15	-	20:20	Fine	53.7	No. 96063)	(No.35124527)	
2024	21:15	-	21:20		53.1	110. 20003)	(110.33124327)	
25 Jan	1:15	-	1:20	1:20 44.2 SVAN 971 (Serial	Rion NC-75			
25 Jan 2024	3:15	-	3:20	Fine	43.8	No. 96063)	(No.35124527)	
2024	5:15	1	5:20		43.5	10.90003)	(110.33124327)	

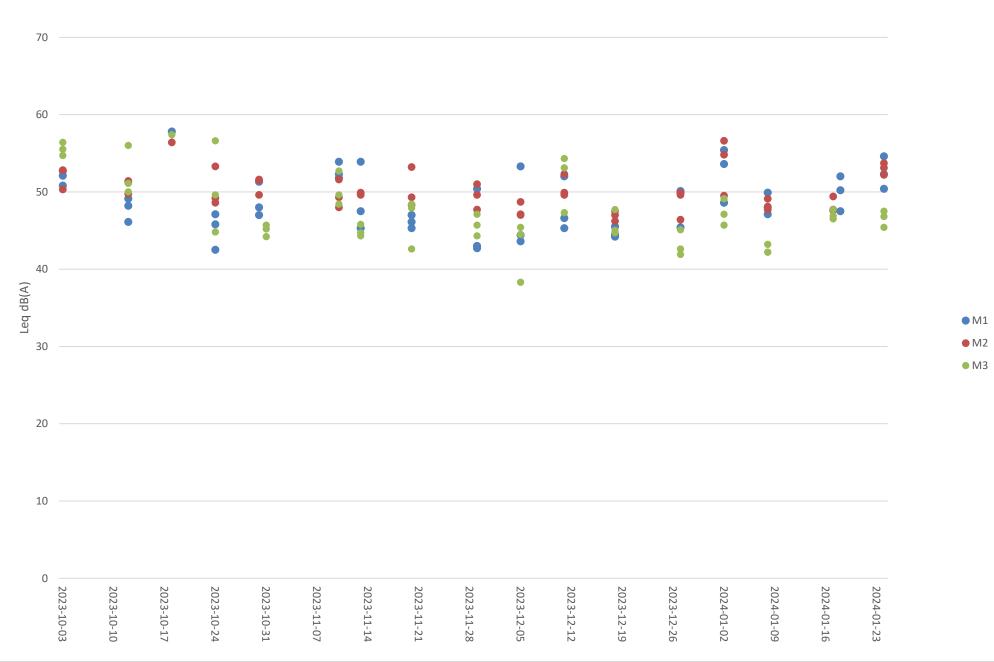
Noise Monitoring Data:

Location:	Shek Kwu Chau Treatment & Rehabilitation Centre Hostel 3 (M3 / N_S3)
Monitoring date:	02, 08, 17, 24 January 2024 (Daytime)
	02&03, 08&09, 17&18 and 24&25 January 2024 (Evening & Night time)
Parameter :	L _{eq 30min} (Daytime), L _{eq 5min} (Evening & Night time)
Noise source other than construction activities from the Project:	Nil

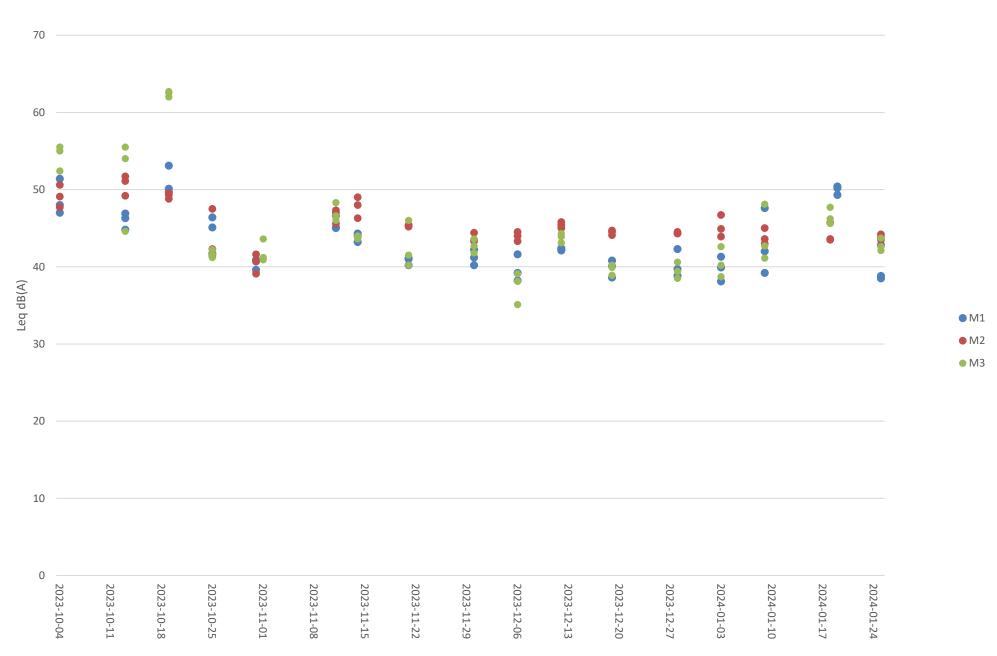
Date	Start time		End time	Weather	$\frac{L_{eq 30min} dB(A) /}{L_{eq 5min} dB(A)}$	Sound Level Meter Used	Calibrator Used	
02 Jan 2024	13:48	-	14:18	Sunny	54.8	SVAN 971 (Serial No. 96063)	Rion NC-75 (No.35124527)	
00.1	19:13	-	19:18		47.1	QVAN071 (0 1	D: NO 75	
02 Jan 2024	20:28	-	20:33	Fine	49.1	SVAN 971 (Serial	Rion NC-75	
2024	21:13	-	21:18		45.7	No. 96063)	(No.35124527)	
03 Jan	1:13	-	1:18		42.6	SVAN 971 (Serial	Rion NC-75	
2024	3:08	-	3:13	Fine	38.7	No. 96063)	(No.35124527)	
2024	5:13	-	5:18		40.2	110. 90003)	(10.33124327)	
08 Jan 2024	13:33	-	14:03	Sunny	55.9	SVAN 971 (Serial No. 96063)	Rion NC-75 (No.35124527)	
08 Jan	19:13	-	19:18		42.2	SVAN 971 (Serial	Rion NC-75	
2024	20:28	-	20:33	Fine	42.2	No. 96063)	(No.35124527)	
2024	21:13	-	21:18		43.2	NO. 90003)	(10.55124527)	
09 Jan	1:13	-	1:18		48.1	SVAN 971 (Serial	Rion NC-75	
2024	3:08	-	3:13	Fine	41.1	No. 96063)	(No.35124527)	
2024	5:13	-	5:18		42.7	,	(10.33124327)	
17 Jan 2024	13:34	-	14:04	Sunny	55.2	RION NL-52 (Serial No. 1010876)	Rion NC-75 (No.35124527)	
17 I	19:14	-	19:19		47.7	RION NL-52	Diam NC 75	
17 Jan 2024	20:14	-	20:19	Fine	46.9	(Serial No.	Rion NC-75 (No.35124527)	
2024	21:24	-	21:29		46.5	1010876)	(1N0.55124527)	
10 Ion	1:24	-	1:29		45.6	RION NL-52	Rion NC-75	
18 Jan 2024	3:14	1	3:19	Fine	46.2	(Serial No.	(No.35124527)	
2024	5:14	1	5:19		47.7	1010876)	(10.55124527)	
24 Jan 2024	13:12	-	13:42	Fine	59.4	RION NL-52 (Serial No. 1010876)	Rion NC-75 (No.35124527)	
24 Ior	19:12	-	19:17		46.8	RION NL-52	Dian NC 75	
24 Jan 2024	20:12	-	20:17	Fine	47.5	(Serial No.	Rion NC-75	
2024	21:12	-	21:17		45.4	1010876)	(No.35124527)	
25 Jan	1:12	-	1:17		43.7	RION NL-52	Rion NC-75	
25 Jan 2024	3:12	-	3:17	Fine	42.6	(Serial No.		
2024	5:12	-	5:17		42.1	1010876)	(No.35124527)	

Noise Monitoring data:





## Additional Impact Noise Monitoring Results during Evening Time (1900 - 2300 hours)



## Additional Impact Noise Monitoring Results during Night Time (2300 - 0700 hours)

Appendix H Waste Flow Table



Monthly Summary Waste Flow Table for _____

<u>2018 (year)</u>

Project : Integrated Waste Management Facilities, Phase 1

Contract No.: EP/SP/66/12

	Actual Quantities of Inert C&D Materials Generated Monthly										Actual Quantities of C&D Wastes Generated Monthly				
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (see Note 1)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill (see Note 4)	Imported Fill Sand (see Note 4)	Imported Fill Public fill (see Note 4)	Imported Fill Rock (see Note 4)	Metals (see Note 5)	Paper/ cardboard packaging (see Note 5)	Plastics (see Note 2, 5)	Chemica	l Waste	Others, e.g. general refuse (see Note 3)	
	(in ,000m ³ )	(in ,000m ³ )	(in ,000m ³ )	(in ,000m ³	(in ,000m ³ )	(i	$(n,000m^3)$		(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	(in ,000 m ³ )	
Jan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Feb	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Jun	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sub-total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Jul	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Aug	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0065	
Sep	0	0	0	0	0	2.9619	0	0	0	0	0	0	0	0	
Oct	0	0	0	0	0	3.0771	0	0	0	0	0	0	0	0.0130	
Nov	0	0	0	0	0	6.7871	0	0	0	0	0	0	0	0	
Dec	0	0	0	0	0	59.0709	0	0	0	0	0	0.2000	0.8700	0	
Total	0	0	0	0	0	71.8970	0	0	0	0	0	0.2000	0.8700	0.0195	

Notes:

(1) Broken concrete for recycling into aggregates.

(2) Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials.

(3) Use the conversion factor : 1 full load of dumping truck being equivalent to  $6.5m^3$  by volume.

(4) Use the conversion factor: sand density =  $1.6T/m^3$ , public fill density =  $1.8T/m^3$  and rock density =  $2T/m^3$ 

(5) Materials recycled.



Monthly Summary Waste Flow Table for



2019

(year)

Project : In	ntegrated W	aste Manag	gement Faci	lities, Phas	e 1		Contract No.: EP/SP/66/12							
		Actual	Quantities of	Inert C&D	Materials Gei	nerated Mon	thly			Actual	Quantities of	C&D Wastes	Generated M	onthly
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (see Note 1)	Reused in the Contract	Reused in other Projects	Public Fill (see Note 4)	Imported Fill Sand (see Note 4)	Fill Public fill (see Note 4)	,	Metals (see Note 5)	Paper/ cardboard packaging (see Note 5)	Plastics (see Note 2, 5)	Chemical Waste		Others, e.g. general refuse (see Note 3)
	(in ,000m ³ )	$(in,000m^3)$	$(in,000m^3)$	(in ,000m ³	(in ,000m ³ )	(1	in ,000m ³ )	1	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	$(in,000 m^3)$
Jan	0	0	0	0	0	82.6139	0	0	0	0	0	0	0	0.0065
Feb	0	0	0	0	0	46.7821	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	97.1000	0	0.7552	0	0.2560	0	0	0	0
Apr	0	0	0	0	0	58.0413	0	0	0	0	0	0	0	0
May	0	0	0	0	0	14.5625	0	1.4648	0	0	0	0	0	0.0065
Jun	0	0	0	0	0	0	0	6.8421	0	0	0	0	0	0
Sub-total	0	0	0	0	0	299.0998	0	9.0621	0	0.2560	0	0	0	0.0130
Jul	0	0	0	0	0	0	0	0.4289	0	0	0	0	8.4000	0.0130
Aug	0	0	0	0	0	2.5775	0	10.5600	0	0	0	0	0	0
Sep	0	0	0	0	0	6.1081	0	8.4704	0	0.3530	0	0	0	0.0065
Oct	0	0	0	0	0	9.8875	0	7.1900	0	0	0	0	0	0
Nov	0	0	0	0	0	38.3088	0	19.3105	0	0	0	0	0	0.0195
Dec	0	0	0	0	0	54.3469	0	26.9807	0	0	0	0	0	0.0910
Total	0	0	0	0	0	410.3286	0	82.0026	0	0.6090	0	0	8.4000	0.1430

Broken concrete for recycling into aggregates. Notes: (1)

Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials. (2)

Use the conversion factor : 1 full load of dumping truck being equivalent to  $6.5m^3$  by volume. (3)

Use the conversion factor: sand density =  $1.6T/m^3$ , public fill density =  $1.8T/m^3$  and rock density =  $2T/m^3$ (4)

(5) Materials recycled.



Monthly Summary Waste Flow Table for _____



2020

(year)

Project : Integrated Waste Management Facilities, Phase 1 Contract No.: EP/SP/66/12 Actual Quantities of Inert C&D Materials Generated Monthly Actual Quantities of C&D Wastes Generated Monthly Imported Imported Imported Hard Rock Paper/ Fill Fill Fill and Large Reused in Disposed as Others, e.g. general Metals cardboard Total Reused in Plastics Month Broken Public Rock Sand Public Fill refuse packaging Chemical Waste the other (see Note (see Note 2, Quantity Concrete fill (see Note (see Note (see Note Generated Contract Projects 5) 5) (see Note 4) (see Note 3) (see Note 4) (see Note 4) 5) 1) 4)  $(in,000m^3)$   $(in,000m^3)$   $(in,000m^3)$   $(in,000m^3)$  $(in, 000m^3)$  $(in, 000m^3)$ (in ,000kg) (in ,000kg) (in ,000 kg) (in ,000kg) (in ,000L)  $(in, 000 \text{ m}^3)$ 0 0 0 0 0 37.1550 25.0812 0 0 0 0 0 0.0065 Jan 0 27.7910 Feb 0 0 0 0 0 0 18.8300 0 0 0 0 0 0.0065 0 0 0 0 0 22.5669 0 26.1586 0 0 0 0 7.2000 0.0065 Mar 0 0 0 0 0 0 0 0 0 12.7800 0 10.1825 0 0.0195 Apr 0 0 0 0 0 16.1138 0 24.3740 0 0.4220 0 0 0 0.0195 May 0 0 0 0 0 31.5177 0 28.3030 0 0 0 0 0 0.0065 Jun 0 0 Sub-total 0 0 0 0 0 147.9244 132.9293 0 0.4220 0 7.2000 0.0650 0 0 0 0 0 0 34.7856 17.0606 35.1800 0 0 0 0 0.0195 Jul 65.5667 0 0 0 0 0 27.1375 27.9335 0 0 0 0 0 0 Aug 110.1328 43.5435 Sep 0 0 0 0 0 11.9813 0 0 0 0 0 0.0195 0 0 0 0 0 2.8213 131.6600 22.5415 0 0 0 0 0 0.0130 Oct 0 0 0 0 0 Nov 0 0 162.1811 44.6475 0.4090 0 0 0.4000 0.0130 174.9800 57.8380 0 0 0 Dec 0 0 0 0 0 0 0 0 0.0130 0 0 224.6501 661.5812 364.6133 0 0 0 0 0.8310 0 0 7.6000 Total 0.1430

(1) Broken concrete for recycling into aggregates.

(2) Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials.

(3) Use the conversion factor : 1 full load of dumping truck being equivalent to  $6.5m^3$  by volume.

(4) Use the conversion factor: sand density =  $1.6T/m^3$ , public fill density =  $1.8T/m^3$  and rock density =  $2T/m^3$ 

(5) Materials recycled.



Monthly Summary Waste Flow Table for _____

<u>2021 (year)</u>

Project : Integrated Waste Management Facilities, Phase 1 Contract No.: EP/SP/66/12 Actual Quantities of Inert C&D Materials Generated Monthly Actual Quantities of C&D Wastes Generated Monthly Hard Rock Imported Imported Imported Paper/ and Large Fill Fill Fill Reused in Disposed as Metals Others, e.g. general Total Reused in cardboard Plastics Month Broken Public fill Sand Rock refuse Public Fill packaging Chemical Waste Quantity the other (see Note (see Note 2. Concrete (see Note (see Note (see Note (see Note 5) 5) Generated Contract Projects (see Note 4) (see Note 3) (see Note 4) 4) 4) 5) 1)  $(in,000m^3)$   $(in,000m^3)$   $(in,000m^3)$   $(in,000m^3)$   $(in,000m^3)$   $(in,000m^3)$  $(in,000m^3)$ (in ,000 kg) (in ,000kg) (in ,000kg) (in ,000kg)  $(in,000 \text{ m}^3)$ (in .000L) 0 0 0 0 0 0 198.1311 0 0 0 0 0 36.4775 0.0065 Jan 0 0 0 0 0 0 0 0 0 0 0 Feb 143.9511 20.9960 0.6305 0 0 0 0 0 0 103.1833 23.4510 0 0 0 0 0 0.0130 Mar 0 0 0 0 0 0 161.2956 0 Apr 27.2810 0 0 0 0 0.0130 0 0 0 0 0 0 0 0 0 193.3300 0 0 0.0715 May 20.5265 0 0 0 0 0 23.7825 0 0 0 0 141.5728 0 0.2440 0.0455 Jun 0 0 0 0 0 0 941.4639 152.5145 0 0.2440 0 0 0 0.7800 Sub-total 0 0 0 0 0 0 105.1083 30.6065 0 0 0 0 0 0.0195 Jul 0 0 0 0 0 0 0 11.1822 7.5180 0 0 0 0 0.0130 Aug 0 0 0 Sep 0 0 0 0 5.7575 0 0 0 0 0.6000 0.0390 0 0 0 0 0 0 0 0 0 0 0 0 6.8885 0 Oct 0 0 0 0 0 0 0 0 6.2975 0 0.1610 0 0 0.0130 Nov Dec 0 0 0 0 0 0 0 5.9235 0 0 0 0 0 0 0 0 0 Total 0 0 0 1057.7544 215.5060 0 0.4050 0 0 0.6000 0.8645

(1) Broken concrete for recycling into aggregates.

(2) Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials.

(3) Use the conversion factor : 1 full load of dumping truck being equivalent to  $6.5m^3$  by volume.

(4) Use the conversion factor: sand density =  $1.6T/m^3$ , public fill density =  $1.8T/m^3$  and rock density =  $2T/m^3$ .

(5) Materials recycled.



Monthly Summary Waste Flow Table for



2022

(year)

Project : In	ntegrated W	aste Manag	gement Faci	ilities, Phas	e 1		Contract No.: EP/SP/66/12							
		Actual	Quantities of	of Inert C&E	O Materials Ge	enerated Mo	nthly			Actual	Quantities of	C&D Wastes	Generated M	lonthly
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (see Note 1)	Reused in the Contract	Reused in other Projects (see Note 4)	Disposed as Public Fill (see Note 4)	Imported Fill Sand (see Note 4)	Imported Fill Public fill (see Note 4)	Imported Fill Rock (see Note 4)	Metals (see Note 5)	Paper/ cardboard packaging (see Note 5)	Plastics (see Note 2, 5)	Chemica	l Waste	Others, e.g. general refuse (see Note 3)
	(in ,000m ³ )	(in ,000m ³ )	(in ,000m ³ )	(in ,000m ³	$(in,000m^3)$		$(in,000m^3)$	T	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	(in ,000 m ³ )
Jan	0	0	0	0	0	0	4.9389	2.7070	0	0.1550	0	0	0	0.0715
Feb	0	0	0	0	0	0	3.2478	4.0290	0	0	0	0.4000	0.2250	0
Mar	0	0	0	0	0	0	2.3422	2.7820	0	0	0	0	0	0.0780
Apr	0	0	0	0	0	0	18.2189	5.8100	0	0.3120	0	0	0	0.1495
May	0.0648	0	0	0	0.0648	0	16.7711	17.2320	0	0	0	0	0	0.0975
Jun	0.0037	0	0	0	0.0037	0.2115	1.1128	14.1470	36.3000	0.3890	0	0	1.7250	0.0975
Sub-total	0.0685	0	0	0	0.0685	0.2115	46.6317	46.7070	36.3000	0.8560	0	0.4000	1.9500	0.4940
Jul	25.7183	0	0	25.7183	0	0.1125	0.8333	17.5210	0	0.6400	0.0060	0	0	0.1235
Aug	13.2494	0	0	13.2494	0	0	0	24.5210	76.0300	1.8870	0	0	0	0.1170
Sep	24.9072	0	0	24.8494	0.0578	0	0	16.2815	72.0600	0.3060	0	0	0	0.1885
Oct	13.3139	0	0	13.3006	0.0133	0	0	11.8665	78.1000	0.5800	0	0	0	0.2405
Nov	26.5583	0	0	26.5583	0	0	0	7.2055	0	0	0	0	0	0.1105
Dec	29.1411	0	0	29.1411	0	0	0	3.5174	0	0	0	0	0	0.2535
Total	132.9567	0	0	132.8171	0.1396	0.3240	47.4650	127.6199	262.4900	4.2690	0.0060	0.4000	1.9500	1.5275

(1) Broken concrete for recycling into aggregates.

(2) Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials.

(3) Use the conversion factor : 1 full load of dumping truck being equivalent to  $6.5m^3$  by volume.

(4) Use the conversion factor: sand density =  $1.6T/m^3$ , public fill density =  $1.8T/m^3$  and rock density =  $2T/m^3$ .

(5) Materials recycled.



Monthly Summary Waste Flow Table for _



2023

(year)

Project : Ir	ntegrated W	aste Manag	gement Faci	ilities, Phas	e 1		Contract No.: EP/SP/66/12							
		Actual	Quantities of	of Inert C&E	Materials Ge	enerated Mo	nthly			Actual	Quantities of	C&D Wastes	Generated M	lonthly
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete (see Note 1)	Reused in the Contract	Reused in other Projects (see Note 4)	Disposed as Public Fill (see Note 4)	Imported Fill Sand (see Note 4)	Imported Fill Public fill (see Note 4)	Imported Fill Rock (see Note 4)	Metals (see Note 5)	Paper/ cardboard packaging (see Note 5)	Plastics (see Note 2, 5)	Chemica	l Waste	Others, e.g. general refuse (see Note 3)
	(in ,000m ³ )	(in ,000m ³ )	(in ,000m ³ )	(in ,000m ³	$(in,000m^3)$		$(in,000m^3)$	1	(in ,000 kg)	(in ,000kg)	(in ,000kg)	(in ,000kg)	(in ,000L)	(in ,000 m ³ )
Jan	24.6728	0	0	24.6728	0	0	0	1.3545	0	0.3150	0	0	0	0.1365
Feb	26.7206	0	0	26.7206	0	0	0	1.8990	11.1501	0	0.0007	0	0	0.1235
Mar	22.1089	0	0	22.1089	0	0	0	0.9025	0	0	0	0	0	0.1105
Apr	36.0011	0	0	36.0011	0	0	0	0	0	0.2150	0	0	0	0.1365
May	21.8900	0	0	21.8900	0	0	0	0	0	0.3160	0	0	0	0.1495
Jun	8.8878	0	0	8.8878	0	0	0	0	0	0	0	0	0	0.1950
Sub-total	140.2812	0	0	140.2812	0	0	0	4.1560	11.1501	0.8460	0.0007	0	0	0.8515
Jul	2.2233	0	0	2.2233	0	0	0	0	0	0.3870	0	0	0	0.1495
Aug	4.4200	0	0	4.4200	0	0	0	0	0	0	0	0	0	0.2015
Sep	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2860
Oct	0	0	0	0	0	0	0	0.4025	0	0.3770	0	0	0	0.2405
Nov	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3510
Dec	0	0	0	0	0	0	0	0.4960	0	0	0	0	0	0.3835
Total	146.9245	0	0	146.9245	0	0	0	5.0545	11.1501	1.6100	0.0007	0	0	2.4635

(1) Broken concrete for recycling into aggregates.

(2) Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials.

(3) Use the conversion factor : 1 full load of dumping truck being equivalent to  $6.5m^3$  by volume.

(4) Use the conversion factor: sand density =  $1.6T/m^3$ , public fill density =  $1.8T/m^3$  and rock density =  $2T/m^3$ .

(5) Materials recycled.



Monthly Summary Waste Flow Table for _____

<u>2024 (year)</u>

Project : Integrated Waste Management Facilities, Phase 1 Contract No.: EP/SP/66/12 Actual Quantities of Inert C&D Materials Generated Monthly Actual Quantities of C&D Wastes Generated Monthly Hard Rock Imported Imported Imported Reused in Paper/ and Large Fill Fill Fill Disposed as Metals Others, e.g. general Total Reused in other cardboard Plastics Month Broken Public fill Sand Rock refuse Projects Public Fill packaging Chemical Waste Quantity the (see Note (see Note 2, Concrete (see Note (see Note (see Note (see Note 5) 5) Generated Contract (see Note (see Note 4) (see Note 3) (see Note 4) 4) 4) 5) 4) 1)  $(in,000m^3)$   $(in,000m^3)$   $(in,000m^3)$   $(in,000m^3)$   $(in,000m^3)$ (in ,000kg) (in ,000L)  $(in,000m^3)$ (in ,000 kg) (in ,000kg) (in ,000kg)  $(in,000 \text{ m}^3)$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0.4355 Jan Feb Mar Apr May Jun 0 0 0 0 0 0 0 0 0 0 0 0 0 0.4355 Sub-total Jul Aug Sep Oct Nov Dec 0 0 0 Total 0 0 0 0 0 0 0 0 0 0 0.4355

(1) Broken concrete for recycling into aggregates.

(2) Plastics refer to plastic bottles/ containers, plastic sheets/ foam from packaging materials.

(3) Use the conversion factor : 1 full load of dumping truck being equivalent to  $6.5m^3$  by volume.

(4) Use the conversion factor: sand density =  $1.6T/m^3$ , public fill density =  $1.8T/m^3$  and rock density =  $2T/m^3$ .

(5) Materials recycled.

# Appendix I Event / Action Plan for Coral Monitoring

Contract No. EP/SP/66/12 Integrated Waste Management Facilities, Phase 1

Keppel Seghers – Zhen Hua Joint Venture

Event		Actio	n	
_	ET Leader II	EC S	o c	ontractor
Exceedance	2. Inform the IEC, SO ,and	Discuss monitoring with the 1. ET and the Contractor; Review proposals for additional monitoring and any other measures submitted by the Contractor 2. and advise the SO accordingly.	Discuss with the IEC 1. additional monitoring requirements and any other measures proposed by the 2. ET; Make the agreement on the measures to be 3. implemented.	notification of the non-compliance in writing; Discuss with the ET and the IEC and propose measures to the IEC and the SO;
Limit Level ¹ Exceedance	<ol> <li>Undertake Steps 1-4 as in 1. the Action Level Exceedance. If further 2. exceedance of Limit Level, propose enhancement measures for consideration.</li> </ol>	Discuss monitoring with the 1. ET and the Contractor; Review proposals for additional monitoring and any other measures submitted by the Contractor 2. and advise the SO accordingly.	Discuss with the IEC 1. additional monitoring requirements and any other measures proposed by the 2. ET; Make the agreement on the measures to be 3. implemented.	notification of the non-compliance in writing; Discuss with the ET and the IEC and propose measures to the IEC and the SO;

Appendix J Event / Action Plan for White-Bellied Sea Eagle

Event		Action	
	Environmental	Audit Team	Contractor
	Team		
Absence of White-bellied Sea Eagle during a whole day of monitoring.	Inform audit team. Increase monitoring frequency to daily.	<ul> <li>Inform site engineer and contractor.</li> <li>If the absence remains: <ul> <li>Review construction activities and noise monitoring records of the associated period;</li> <li>Identify potential causes of the absence;</li> <li>Propose remedial measures, such as change of construction method and sequence;</li> <li>Confirm the feasibility of the proposed remedial measures with site engineer and contractor;</li> <li>Discuss with environmental team about the effectiveness of the proposed remedial measures.</li> </ul> </li> </ul>	Implement the agreed remedial measures.

Appendix K Exceedance Report

Integrated Waste Management Facilities, Phase 1

Noise (Day Time)				
Location	Action Level	Limit Level	Total	
M1	0	0	0	
M2	0	0	0	
M3	0	0	0	
	Noise (Ev	vening Time)		
Location	Action Level	Limit Level	Total	
M1	0	0	0	
M2	0	0	0	
M3	0	0	0	
	Noise (N	Night Time)	·	
Location	Action Level	Limit Level	Total	
M1	0	0	0	
M2	0	0	0	
M3	0	0	0	

### Statistical Summary of Exceedances in the Reporting Period

Appendix L Complaint Log

Integrated Waste Management Facilities, Phase 1

#### Statistical Summary of Environmental Complaints

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
01 Jan 2024 - 31 Jan 2024	0	4	N/A

#### Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Details
01 Jan 2024 -	0	0	N/A
31 Jan 2024		0	

#### Statistical Summary of Environmental Prosecution

Reporting Period	<b>Environmental Prosecution Statistics</b>		
	Frequency	Cumulative	Details
01 Jan 2024 -	0	0	N/A
31 Jan 2024		0	

# Appendix M Impact Monitoring Schedule of Next Reporting Month

	Impact Monitoring Schedule for IWMF Feb-24				
	Mon	Tue	FED-24 Wed	Thu	Fri
Sun		lue	wed	1	2
				Impact Daytime & Evening Noise monitoring for M1, M2 & M3 Ecology monitoring for WBSE	- Night time Noise
4	5 Impact Daytime & Evening Noise monitoring for M1 & M2	6 Impact Night time Noise monitoring for M1 & M2 Daytime & Evening Noise monitoring for M3	7 Impact Night time Noise monitoring for M3	8 Impact Ecology monitoring for WBSE	9
11	12	13 20 Impact	21 Impact	Impact Ecology monitoring for WBSE Daytime & Evening Noise monitoring for M1, M2 & M3	16 Night time Noise
25	26	Daytime & Evening Noise monitoring for M1, M2 & M3	Night time Noise monitoring for M1, M2 & M3	Ecology monitoring for WBSE	
	Impact Daytime & Evening Noise monitoring for M1, M2 & M3	Impact Night time Noise monitoring for M1, M2 & M3		Impact Ecology monitoring for WBSE	

Remarks: 1. Daytime Noise Monitoring (07:00-1900), Evening Time Noise Monitoring (1900-2300), Night Time Noise Monitoring (2300-0700) 2. Water Quality Monitoring for 51,52 and 53 will only conduct during DCM works, refer to Detailed DCM Plan 3. No marine construction work is tentatively scheduled to be carried out in February 2024

