香港電燈有限公司 The Hongkong Electric Co., Ltd.



Lamma Power Station Extension Construction Phase Monthly Environmental Monitoring & Audit Report

September 2022



ENVIRONMENTAL IMPACT ASSESSMENT (EIA) ORDINANCE, CAP. 499

ENVIRONMENTAL PERMIT NO. EP-071/2000/D

LAMMA POWER STATION EXTENSION ENVIRONMENTAL MONITORING & AUDIT PROGRAMME AT CONSTRUCTION PHASE

Report Title	Lamma Power Station Extension – Unit L12 Monthly EM&A Report (September 2022)		
Date	13 October 2022		
Certified by	pleo		
	(Mr. CHAN Hon Yeung, Environmental Team Leader)		
Verified by	Coglification		
	Mr. Y T Tang (AECOM Asia Company Limited, Independent Environmental Checker)		

TABLE OF CONTENT

EXECUTIVE SUMMARY

1.	INTRODUCTION	1
1.1	Background	1
1.2	Project Organisation	1
1.3	Construction Works undertaken during the Reporting Month	1
1.4	Summary of EM&A Requirements	4
2.	AIR QUALITY	6
2.1	Monitoring Requirements	6
2.2	Monitoring Locations	6
2.3	Monitoring Equipment	6
2.4	Monitoring Parameters, Frequency and Duration	6
2.5	Monitoring Procedures and Calibration Details	7
2.6	Results and Observations	8
3.	NOISE	10
3.1	Monitoring Requirements	10
3.2	Monitoring Locations	10
3.3	Monitoring Equipment	10
3.4	Monitoring Parameters, Frequency and Duration	10
3.5	Monitoring Procedures and Calibration Details	11
3.6	Results and Observations	11
4.	ENVIRONMENTAL AUDIT	13
4.1	Review of Environmental Monitoring Procedures	13
4.2	Assessment of Environmental Monitoring Results	13
4.3	Waste Management	13
4.4	Site Environmental Audit	14
4.5	Status of Environmental Licensing and Permitting	14
4.6	Implementation Status of Environmental Mitigation Measures	15
4.7	Implementation Status of Event/Action Plans	15
4.8	Implementation Status of Environmental Complaint Handling Procedures	15
5.	FUTURE KEY ISSUES	17
5.1	Key Issues for the Coming Month	17
5.2	Monitoring Schedules for the Next 3 Months	17
5.3	Construction Program for the Next 3 Months	18
6	CONCLUSION	10

LIST OF TABLES

Table 1.1	Construction Activities and Their Corresponding Environmental Mitigation Measures
Table 2.1	Air Quality Monitoring Locations
Table 2.2	Air Quality Monitoring Equipment
Table 2.3	Air Quality Monitoring Parameter, Duration and Frequency
Table 3.1	Noise Monitoring Equipment
Table 3.2	Noise Monitoring Duration and Parameter
Table 4.1	Summary of AL Level Exceedances on Monitoring Parameters
Table 4.2	Estimated Amounts of Waste in September 2022
Table 4.3	Summary of Environmental Licensing and Permit Status
Table 4.4	Environmental Complaints Received in September 2022
Table 4.5	Outstanding Environmental Complaints Carried Over

LIST OF FIGURES

Figure 1.1	Layout of Work Site
Figure 2.1	Location of Air Quality Monitoring Stations
Figure 3.1	Location of Noise Monitoring Stations

APPENDICES

Appendix A	Organization Chart
Appendix B	Action and Limit Levels for Air Quality and Noise
Appendix C	Environmental Monitoring Schedule
Appendix D	Air Quality Monitoring Results for September 2022
Appendix E	Noise Monitoring Results for September 2022
Appendix F	The QA/QC Procedures and Results
Appendix G	Event/Action Plans
Appendix H	Site Audit Summary
Appendix I	Summary of EMIS
Appendix J	Tentative Construction Programme
Appendix K	Monthly Waste Flow Table for September 2022

EXECUTIVE SUMMARY

This is the 149th monthly Environmental Monitoring and Audit (EM&A) report for the Project "Construction of Lamma Power Station Extension" prepared by the Environmental Team (ET). This report presents the results of impact monitoring on air quality and noise for the said project in September 2022.

The reclamation and submarine pipeline works were completed with the first gas-fired combined cycle unit (viz. Unit L9) commissioned in October 2006, working currently on base load operation. To cope with the scheduled retirement of the existing units at Lamma Power Station, the second gas-fired combined cycle unit (viz. Unit L10) L10 was commissioned for reliable operation in February 2020.

In September 2016, the Government approved HK Electric to construct the third combined cycle gasfired generating unit (Unit L11) to implement the 2020 Fuel Mix Target. L11 was commissioned for reliable operation effective in May 2022. The operational EM&A work for L9, L10 and L11 is recorded in the separate monthly EM&A report for the Project "Operation of Lamma Power Station Extension".

With the Government's approval to build the fourth combined cycle gas-fired generating unit (L12) in July 2018, the associated construction work commenced in April 2019. When L12 is commissioned in 2023, the total gas-fired electricity generation will further rise to reach about 70% of our total output.

Air and noise monitoring were performed. The results were checked against the established Action/Limit (AL) levels. An on-site audit was conducted once per week. The implementation status of the environmental mitigation measures, Event/Action Plan and environmental complaint handling procedures were also checked.

Construction Activities Undertaken

Construction activities for Lamma Extension during the reporting month are tabulated as follows:

Item	Construction Activities
Unit L12 Civil and Building Works	Construction of Main Station Building, construction of No. 5 Chimney, construction of L12 GRS, construction of superstructure and cable trench works for ACB, construction of cable trench and installation of precast parapet for Cable Bridge (North & South), construction of superstructure for shunt reactor compound extension and reinstatement of seawall blocks and construction of external wall of intake chamber for No. 5 C.W. Intake.
Unit L12 Mechanical Erection	Condenser installation, HRSG installation and turbine block installation
Unit L12 Electrical, Instrumentation & Control Erection	Cable installation

Environmental Monitoring Works

All monitoring work at designated stations was performed as scheduled satisfactorily.

Air Quality

No exceedance of Action/Limit levels on 1-hour TSP and 24-hour TSP for air quality was recorded in the month.

Noise

No exceedance of Action and Limit levels for noise arising from the construction of Lamma Extension was recorded in the month.

Site Environmental Audit

EPD officials from Regional Office (South) visited Lamma Power Station on 8/9/2022. There was no adverse comment from EPD regarding the construction site.

Site audits were carried out on a weekly basis to monitor environmental issues on the construction site. The site conditions were generally satisfactory.

Environmental Licensing and Permitting

Description	escription Permit No. Valid Period		Issued To	Date of	
		From	To		Issuance
Varied Environmental Permit	EP-071/2000/D	28/09/20	-	HK Electric	28/09/20
Construction Noise Permit	GW-RS0222-22	13/04/22	12/10/22	Contractor	11/04/22
Construction Noise Permit	GW-RS0551-22	10/07/22	07/01/23	Contractor	08/07/22
Construction Noise Permit	GW-RS0613-22	29/07/22	27/01/23	Contractor	27/07/22
Construction Noise Permit	GW-RS0674-22	01/09/22	28/02/23	Contractor	17/08/22
WPCO Discharge Licence	WT00037613-2021	15/04/21	30/04/26	Contractor	15/04/21
WPCO Discharge Licence	WT00037665-2021	06/05/21	31/05/26	Contractor	06/05/21
Registration of Chemical Waste Producer	WPN5213-912- P2781-22	22/02/16	-	Contractor	22/02/16
Registration of Chemical Waste Producer	WPN5517-912- T2007-02	17/03/05	-	Contractor	17/03/05
Waste Disposal Billing Account	Account No.: 7038672	27/10/20	-	Contractor	27/10/20
Waste Disposal Billing Account	Account No.: 7039272	08/01/21	-	Contractor	08/01/21
Waste Disposal Billing Account	Account No.: 7041942	21/10/21	-	Contractor	21/10/21

Implementation Status of Environmental Mitigation Measures

Environmental mitigation measures for the construction activities as recommended in the EM&A manual were implemented in the reporting month.

Environmental Complaints

No complaint in relation to the environmental impact of the construction activities was received in the reporting month.

Future Key Issues

The future key issues to be considered in the coming month are as follows:

Unit L12 Civil and Building Works

- to continue monitoring the noise level during construction and to ensure compliance with the CNP's already obtained;
- to monitor and review the sufficiency of the dust suppression measures provided and increase the resources accordingly if necessary;
- to treat wastewater in sedimentation pit and tanks before discharge and to ensure compliance with the WPCO discharge licence already obtained;

Unit L12 Mechanical Erection

- to continue monitoring the noise level during construction and to ensure compliance with the CNP's already obtained;
- to continue executing the preventive measures for avoiding noise exceedance and keep monitoring/reviewing the performance;
- to monitor and review the sufficiency of the dust suppression measures provided and increase the resources accordingly if necessary.

Unit L12 Electrical, Instrumentation & Control Erection

- to continue monitoring the noise level during construction and to ensure compliance with the CNP's already obtained;
- to continue executing the preventive measures for avoiding noise exceedance and keep monitoring/ reviewing the performance;
- to monitor and review the sufficiency of the dust suppression measures provided and increase the resources accordingly if necessary.

Concluding Remarks

The environmental performance of the project was generally satisfactory.

1. INTRODUCTION

1.1 Background

The Environmental Team (hereinafter called the "ET") was formed within the Hongkong Electric Co. Ltd (HEC) to undertake Environmental Monitoring and Audit for "Construction of Lamma Power Station Extension" (hereinafter called the "Project"). Under the requirements of Section 6 of Environmental Permit EP-071/2000/D, an EM&A programme for impact environmental monitoring set out in the EM&A Manual (Construction Phase) is required to be implemented. In accordance with the EM&A Manual, environmental monitoring of air quality, noise and water quality and regular environmental audits are required for the Project. With the completion of reclamation and submarine pipeline works, no further marine water quality monitoring would be required.

The Project involves the construction of a gas-fired power station employing combined cycled gas turbine technology, forming an extension to the existing Lamma Power Station. The key elements of the Project including the construction activities associated with the transmission system and submarine gas pipeline are outlined as follows.

- dredging and reclamation to form approximately 22 hectares of usable area;
- construction of six 300MW class gas-fired combined cycle units;
- construction of a gas receiving station;
- construction of a transmission system linking the Lamma Extension to load centres on Hong Kong Island;
- laying of a gas pipeline for the supply of natural gas to the new power station

This report summarizes the environmental monitoring and audit work for the Project for the month of September 2022.

1.2 Project Organisation

An Environmental Management Committee (EMC) has been set up in HEC to oversee the Project. The management structure includes the following:

- Environmental Protection Department (The Authority);
- Environmental Manager (The Chairman of the Environmental Management Committee);
- Engineer:
- Independent Environmental Checker (IEC);
- Environmental Team (ET);
- Contractor.

The project organisation chart for the construction EM&A programme is shown in Appendix A.

1.3 Construction Works undertaken during the Reporting Month

Construction activities for Unit L12 civil and building works were, construction of Main Station Building, construction of No.5 Chimney, construction of L12 GRS, construction of superstructure and cable trench works for ACB, and construction of cable trench and installation of precast parapet for Cable Bridge (North & South), construction of superstructure for shunt reactor compound extension, reinstatement of seawall blocks and construction of external wall of intake chamber for No. 5 C.W. Intake, Construction activities for Unit L12 mechanical

erection were condenser installation, HRSG installation and turbine block installation. Construction activity for Unit L12 electrical, instrumentation & control erection was cable installation. Layout plan for construction site is shown in Figure 1.1.

The main construction activities carried out during the reporting month and the corresponding environmental mitigation measures are summarized in Table 1.1. The implementation of major mitigation measures in the month is provided in Appendix I.

Table 1.1 Construction Activities and Their Corresponding Environmental Mitigation Measures

Item	Construction Activities	Environmental Mitigation Measures	
Unit L12	2 Civil and Building	Works	
1.	Construction of Main Station Building Construction of No.5 Chimney Construction of L12 GRS ACB Construction of superstructure Cable trench works	Air All regulated machine attached with valid exception/approval NRMM labels. Water truck and water sprinkler system would be used. Water spraying for concrete breaking works. Soil stock would be covered with cement or tarpaulin or keep the entire surface wet. Wheel washing facility was provided. Noise Works conducted during restricted hours should comply with the valid CNP. Noise emission label was provided for air compressor. Wastewater Wastewater should be treated in desilting pit and tanks before discharge. Solution should be added to speed up the sedimentation process. Sediment in pit and tanks must be removed regularly. The frequency would be in weekly basis depends on the volume of sediment accumulated in order to maintain sufficient volume for wastewater treatment. Waste Management Excavated soil was temporary stored for backfilling and reuse in other projects. Scrape metal would be recycled. Chemical waste should be collected by licensed collector.	
2.	Cable Bridge (North & South):	Air - All regulated machine attached with valid	

Item	Construction Activities	Environmental Mitigation Measures
	Construction of cable trench and installation of precast parapet Shunt Reactor Compound Extension Construction of superstructure No. 5 C.W. Intake Reinstatement of seawall blocks and construction of external wall of intake chamber	exception/approval NRMM labels. Water truck, water sprinkler system and mist cannon were used. Excavated soil slop covered with tarpaulin. Wheel washing facilities was provided. Water spraying on haul road and during concrete breaking. Noise Noise Noise emission label was provided for air compressor. Works conducted during restricted hours should comply with the valid CNP. Waste Management Excavated soil would be transferred to other project for reuse. Wastewater Wastewater Silt curtain was provided as preventive measures at Intake 5.
Unit L12	2 Mechanical Erection	on .
3.	Condenser installation HRSG installation Turbine block installation	Air - Dust suppression measures implemented according to the EMP. Noise - General noise mitigation measures employed at all
		work sites throughout the construction phase. Waste Management - Waste Management Plan submitted and implemented
Unit L12	2 Electrical, Instrume	entation & Control Erection
4.	Cable installation	Air - Dust suppression measures implemented according to the EMP. Noise
		 General noise mitigation measures employed at all work sites throughout the construction phase.

Item	Construction Activities	Environmental Mitigation Measures	
		Waste Management - Waste Management Plan submitted and implemented.	

1.4 Summary of EM&A Requirements

The detailed EM&A monitoring work for air quality and noise are described in Sections 2 and 3 respectively. Regular environmental site audits for air quality, noise, water quality and waste management were carried out.

The following environmental audits are summarized in Section 4 of this report:

- Environmental monitoring results;
- Waste Management Records;
- Weekly site audit results;
- The status of environmental licensing and permits for the Project;
- The implementation status of environmental protection and pollution control/ mitigation measures.

Future key issues will be reported in Section 5 of this report.

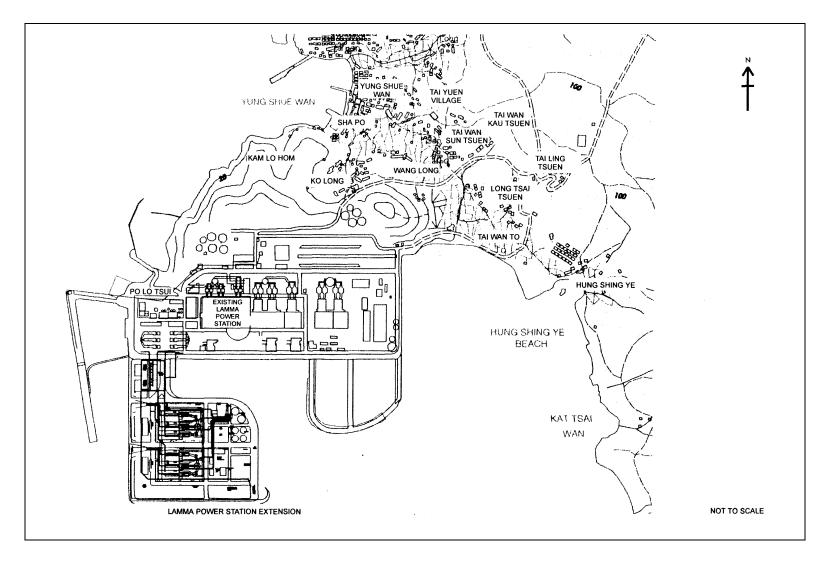


Figure 1.1 Layout of Work Site

2. AIR QUALITY

2.1 Monitoring Requirements

1-hour and 24-hour TSP monitoring at agreed frequencies were conducted to monitor air quality. The impact monitoring data were checked against the Action/Limit Levels as determined in the Baseline Monitoring Report (Construction Phase). Appendix B shows the established Action/Limit Levels for Air Quality.

2.2 Monitoring Locations

Three dust monitoring locations were selected for 1-hour TSP sampling (AM1, AM2 & AM3) while four monitoring locations were selected for 24-hour TSP sampling (AM1, AM2, AM3 and AM4). Table 2.1 tabulates the monitoring stations. The locations of the monitoring stations are shown in Figure 2.1.

Table 2.1 Air Quality Monitoring Locations

Location I.D.	Description
AM1	Reservoir
AM2	East Gate
AM3	Ash Lagoon
AM4	Tai Yuen Village

2.3 Monitoring Equipment

It is agreed with EPD that continuous 24-hour TSP air quality monitoring would be performed using TEOM continuous dust monitor and the MINIVOL Portable Sampler at AM1,2&3 and AM4 respectively. TEOM continuous dust monitors were used to carry out 1-hour TSP monitoring at AM1, AM2 and AM3. Table 2.2 summarises the equipment used in dust monitoring.

Table 2.2 Air Quality Monitoring Equipment

Equipment	Model and Make
24-hour sampling:	
Continuous TSP Dust Meter	TEOM continuous dust monitor Thermo Scientific
MINIVOL Portable Sampler	AIRMETRICS
1-hour sampling: Continuous TSP Dust Meter	TEOM continuous dust monitor Thermo Scientific

2.4 Monitoring Parameters, Frequency and Duration

Table 2.3 summarises the monitoring parameters, duration and frequency of air quality monitoring. The monitoring schedule for the reporting month is shown in Appendix C.

Table 2.3 Air Quality Monitoring Parameter, Duration and Frequency

Monitoring Stations	Parameter	Duration	Frequency
AM1	1-hour TSP	1	3 hourly samples every 6 days
AWII	24-hour TSP	24	Once every 6 days
AM2	1-hour TSP	1	3 hourly samples every 6 days
AWIZ	24-hour TSP	24	Once every 6 days
AM3	1-hour TSP	1	3 hourly samples every 6 days
AIVIS	24-hour TSP	24	Once every 6 days
AM4	24-hour TSP	24	Once every 6 days

2.5 Monitoring Procedures and Calibration Details

MINIVOL (24- hour TSP Monitoring):

Preparation of Filter Papers

- Visual inspection of filter papers was carried out to ensure that there were no pinholes, tears and creases;
- The filter papers were then labeled before sampling.
- The filter papers were equilibrated at room temperature and relative humidity < 50% for at least 24 hours before weighing.

Field Monitoring

- During collection of the sampled filter paper, the information on the elapse timer was logged. Site observations around the monitoring stations, which might have affected the monitoring results, were also recorded. Major pollution sources, if any, would be identified and reported.
- The post-sampling filter papers were removed carefully from the filter holder and folded to avoid loss of fibres or dust particles from the filter papers;
- The filter holder and its surrounding were cleaned;
- A pre-weighed blank filter paper for the next sampling was put in place and aligned carefully. The filter holder was then tightened firmly to avoid leakage;
- The programmable timer was set for the next 24 hrs sampling period;
- The post-sampling filter papers were equilibrated at room temperature and relative humidity < 50% for at least 24 hours before weighing.

TEOM continuous dust monitor (24- hour TSP and 1- hour TSP Monitoring):

- The following parameters of the TEOM model dust meters are regularly checked to ensure proper functionality:
 - Operation Mode:
 - o Frequency of the tapered element;
 - o Main flow;
 - o Bypass flow.

Maintenance & Calibration

• The monitoring equipment and their accessories are maintained in good working conditions.

• Monitoring equipment is calibrated at monthly intervals. Calibration details are shown in Appendix F.

2.6 Results and Observations

All dust monitoring works were conducted on schedule. All monitoring data and graphical presentation of the monitoring results are provided in Appendix D. Key findings and observations are provided below:

1-hour TSP

No exceedance of 1-hour TSP Action/Limit Level was recorded in the month.

24-hour TSP

No exceedance of 24-hour TSP Action/Limit Level was recorded in the month.

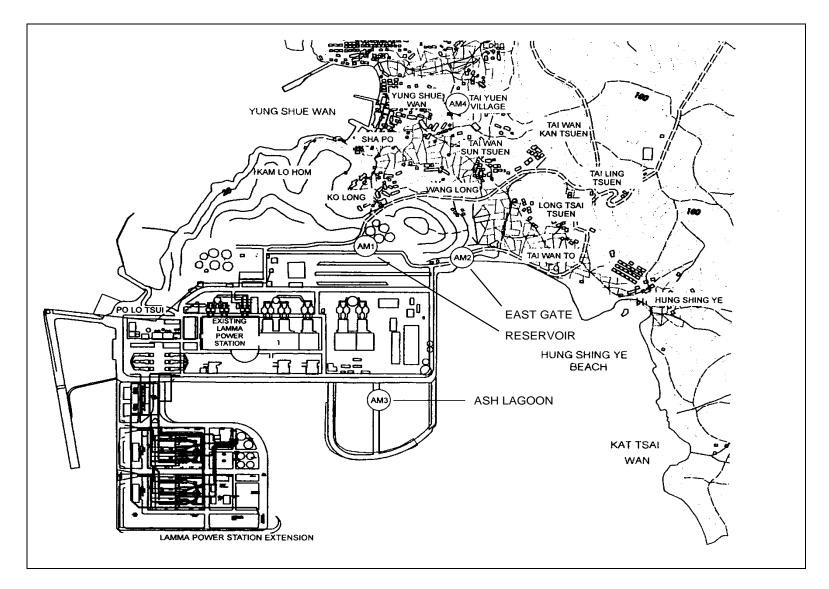


Figure 2.1 Location of Air Quality Monitoring Stations

3. NOISE

3.1 Monitoring Requirements

Continuous noise alarm monitoring at Ash Lagoon/Ching Lam were carried out to calculate the noise contributed by the construction activities at the two critical NSR's, viz. Long Tsai Tsuen/Hung Shing Ye and the school within the village of Tai Wan San Tsuen. The impact monitoring data for construction noise were checked against the limit levels specified in the EM&A Manual. With the availability of the construction noise permits, impact monitoring for the construction work during the restricted hours was also carried out. Section 3 presents the details of the construction noise permits.

The impact noise monitoring data were checked against the limit levels specified in the EM&A Manual. Appendix B shows the established Action/Limit Levels for noise.

3.2 Monitoring Locations

In accordance with the EM&A manual, the identified noise monitoring locations of Ash Lagoon and Ching Lam are shown in Figure 3.1.

3.3 Monitoring Equipment

The sound level meters used for noise monitoring complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1). The noise monitoring equipment used is shown in Table 3.1.

Table 3.1 Noise Monitoring Equipment

Equipment	Model
Sound level meters	B&K 2250
Sound level calibrator	B&K 4231

3.4 Monitoring Parameters, Frequency and Duration

Continuous alarm monitoring was carried out at Ash Lagoon and Ching Lam. The measurement duration and parameter of noise monitoring were presented in Table 3.2 as follows:

Table 3.2 Noise Monitoring Duration and Parameter

	Location	Time Period	Frequency	Parameter	
--	----------	-------------	-----------	-----------	--

	Day-time: 0700-1900 hrs on normal weekdays	Day-time: 30 minutes	30-min L _{Aeq}
Ash Lagoon Ching Lam	Evening-time & holidays: 0700-2300 hrs on holidays; and 1900-2300 hrs on all other days	Evening-time & holidays: 5 minutes	5-min L _{Aeq}
Cining Zuni	Night-time: 2300-0700 hrs of next day	Night-time: 5 minutes	5-min L _{Aeq}

3.5 Monitoring Procedures and Calibration Details

Monitoring Procedures

Continuous Noise Monitoring for Lamma Extension Construction

The measured noise levels (MNL's) were collected at the noise alarm monitoring stations at Ash Lagoon and Ching Lam. The notional background noise levels (viz. baseline noise data at Ash Lagoon and Ching Lam) were applied to correct the corresponding MNL's in 30-min/5-min L_{Aeq}.

A wind speed sensor was installed at Station Building Rooftop. The wind speed signal was used to determine whether the data from Ash Lagoon and Ching Lam noise alarm monitoring stations were affected. The instantaneous data was discarded in case the instantaneous wind speed exceeded 10 m/s. The 30-min/5-min L_{Aeq} was considered valid only if the amount of valid data was equal to or above 70%.

Equipment Calibration

The sound level meters and calibrators were verified by the manufacturer or accredited laboratory. With the endorsement of the Independent Environmental Checker, the enhancement of calibration of sound level meter at the noise monitoring stations was implemented. The monthly manual on-site calibration using sound level calibrator was replaced by the daily auto charge injection calibration function of the sound level meter. For additional quality assurance, manual on-site calibration would still be conducted for the noise monitoring stations once every 6 months. The manual on-site calibrations for Ash Lagoon and Ching Lam noise monitoring stations were carried out in May and September 2022 respectively. The next calibrations for the two corresponding noise monitoring stations were scheduled in November 2022 and March 2023 respectively.

3.6 Results and Observations

Continuous noise monitoring was conducted at the two monitoring stations at Ash Lagoon and Ching Lam.

All monitoring results and their graphical presentations are provided in Appendix E. No exceedance of noise Action/Limit Level was recorded in the month.

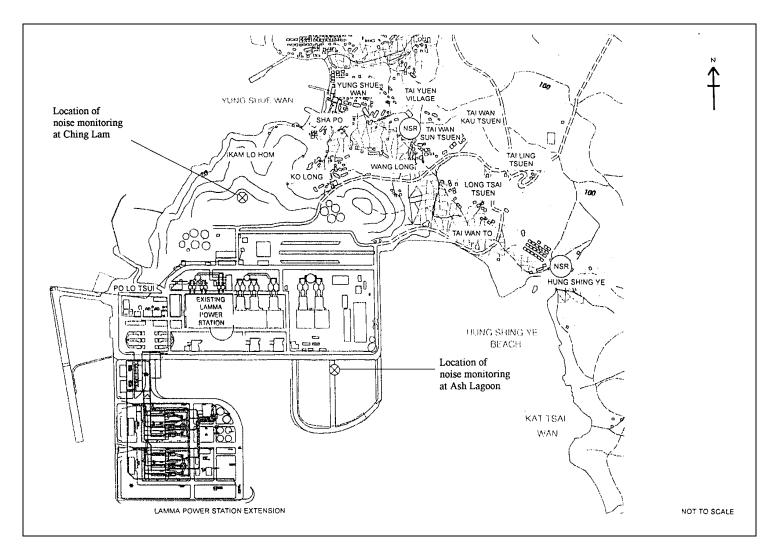


Figure 3.1 Location of Noise Monitoring Stations

4. ENVIRONMENTAL AUDIT

4.1 Review of Environmental Monitoring Procedures

The environmental monitoring procedures were regularly reviewed by the Environmental Team. No modification to the existing monitoring procedures was recommended.

4.2 Assessment of Environmental Monitoring Results

Monitoring results for Air Quality and Noise

The environmental monitoring results for Air Quality and Noise in the reporting month presented in Sections 2 and 3 respectively are summarized in Table 4.1.

Table 4.1 Summary of AL Level Exceedances on Monitoring Parameters

Item	Parameter Monitored	Monitoring Period		. of ances In	Event/Action Plan Implementation Status
			Action Level	Limit Level	and Results
Air					
1	Ambient TSP (24-hour)	01/09/2022- 30/09/2022	0	0	
2	Ambient TSP (1-hour)	01/09/2022- 30/09/2022	0	0	
Noise					
1	Noise level at the critical NSR's predicted by the noise alarm monitoring system	01/09/2022- 30/09/2022	0	0	

4.3 Waste Management

Wastes generated from this Project include inert construction and demolition (C&D) materials and non-inert C&D materials. Inert C&D materials comprise excavated materials and broken concrete. Non-inert C&D materials comprise general refuse, metals and paper/ cardboard packaging, plastics, chemical waste, etc.

Inert C&D material and non-inert C&D material disposed of in September 2022 are shown in Table 4.2.

Table 4.2 Estimated Amounts of Waste in September 2022

	N	on-inert C&D Materials		
Total Inert C&D Waste Materials	C&D Materials Recycled	C&D Waste Disposed of at Landfill	Chemical Waste	

0 Tonnes	11.64 Tonnes	120.79 Tonnes	0 Litres
----------	--------------	---------------	----------

The monthly waste flow tables prepared by the contractors are attached in Appendix K

4.4 Site Environmental Audit

EPD officials from Regional Office (South) visited Lamma Power Station on 8/9/2022. There was no adverse comment from EPD regarding the construction site.

Site audits were carried out by ET on a weekly basis to monitor environmental issues at the construction sites to ensure that all mitigation measures were implemented timely and properly. The site audit findings for the reporting month are summarized in Appendix H. The site conditions were generally satisfactory. All required mitigation measures were implemented.

4.5 Status of Environmental Licensing and Permitting

All permits/licenses obtained for the project are summarised in Table 4.3.

Table 4.3 Summary of Environmental Licensing and Permit Status

Description	Permit No.	Valid Period		Highlights	Status
_		From	To		
Varied Environmental Permit	EP-071/2000/D	28/09/20	-	The whole construction work site	Valid
Construction Noise Permit	GW-RS0222-22	13/04/22	12/10/22	Construction site of Unit L12. Operation of PME during restricted hours	Valid
Construction Noise Permit	GW-RS0551-22	10/07/22	07/01/23	Construction site of Unit L12. Operation of PME during restricted hours	Valid
Construction Noise Permit	GW-RS0613-22	29/07/22	27/01/23	Civil and Building Works for Unit L12. Operation of PME during restricted hours	Valid
Construction Noise Permit	GW-RS0674-22	01/09/22	28/02/23	Power Block Facilities works for Unit L12. Operation of PME during restricted hours	Valid
WPCO Discharge Licence#	WT00037613- 2021	15/04/21	30/04/26	Civil and Building Works for No.5 C.W. Intake and Cable Bridge	Valid
WPCO Discharge Licence##	WT00037665- 2021	06/05/21	31/05/26	Civil and Building Works for Unit L12	Valid

Description	Permit No.	Valid Period		Highlights	Status
_		From	To		
Registration of Chemical Waste Producer	WPN5213-912- P2781-22	22/02/16	-	Civil and Building Works	Valid
Registration of Chemical Waste Producer	WPN5517-912- T2007-02	17/03/05	-	E&M Equipment Installation and Maintenance	Valid
Waste Disposal Billing Account	Account No.: 7038672	27/10/20	-	Civil works for Unit L12 No.5 C.W. intake and cable bridge	Valid
Waste Disposal Billing Account	Account No.: 7039272	08/01/21	-	Civil and building works for Unit L12	Valid
Waste Disposal Billing Account	Account No.: 7041942	21/10/21	-	E&M Erection of Power Block Facilities – L12	Valid

Notes: # and ## - Water quality monitoring was carried out in August 2022 and the results of which would be reported separately by the contractor.

4.6 Implementation Status of Environmental Mitigation Measures

Mitigation measures detailed in the permits and the EM&A Manual (Construction Phase) are required to be implemented. An updated summary of the Environmental Mitigation Implementation Schedule (EMIS) is presented in Appendix I.

4.7 Implementation Status of Event/Action Plans

The Event/Action Plans extracted from the EM&A Manual (Construction Phase) are presented in Appendix G.

4.8 Implementation Status of Environmental Complaint Handling Procedures

In September 2022, no complaint in relation to the environmental impact of the construction activities was received.

Table 4.4 Environmental Complaints Received in September 2022

Case Reference / Date, Time Received / Date, Time Concerned	Descriptions / Actions Taken	Conclusion / Status
Nil	N/A	N/A

Table 4.5 Outstanding Environmental Complaints Carried Over

Case Reference / Date, Time Received / Date, Time Concerned	Descriptions / Actions Taken	Conclusion / Status
Nil	N/A	N/A

5. FUTURE KEY ISSUES

5.1 Key Issues for the Coming Month

Key issues to be considered in the coming month include:

Unit L12 Civil and Building Works

Noise Impact

• To continue monitoring the noise level during construction and to ensure compliance with the CNP's already obtained.

Air Impact

• To monitor and review the sufficiency of the dust suppression measures provided and increase the resources accordingly if necessary.

Water Impact

• To treat wastewater in sedimentation pit and tanks before discharge and to ensure compliance in accordance with the WPCO discharge licence already obtained.

Unit L12 Mechanical Erection

Noise Impact

- To continue monitoring the noise level during construction and to ensure compliance with the CNP's already obtained.
- To continue executing the preventive measures for avoiding noise exceedance and keep monitoring/reviewing the noise performance.

Air Impact

• To monitor and review the sufficiency of the dust suppression measures provided and increase the resources accordingly if necessary.

Unit L12 Electrical, Instrumentation & Control Erection

Noise Impact

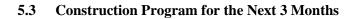
- To continue monitoring the noise level during construction and to ensure compliance with the CNP's already obtained.
- To continue executing the preventive measures for avoiding noise exceedance and keep monitoring/ reviewing the noise performance.

Air Impact

To monitor and review the sufficiency of the dust suppression measures provided and increase the resources accordingly if necessary.

5.2 Monitoring Schedules for the Next 3 Months

The tentative environmental monitoring schedules for the next 3 months are shown in Appendix C.



The tentative construction programs for the next 3 months are shown in Appendix J.

6. CONCLUSION

All monitoring work at designated stations was performed as scheduled satisfactorily. The environmental monitoring works and site inspection were performed as scheduled in the reporting month. All monitoring results were checked and reviewed.

No Action/Limit level exceedance on 1-hour and 24-hour TSP level was recorded in the reporting month.

No Action/Limit level exceedance on noise was recorded in the reporting month.

Environmental mitigation measures recommended in the EM&A manual for the construction activities were implemented in the reporting month. No complaint in relation to the environmental impact of the construction activities was received in the reporting month. No prosecution was received for this Project in the reporting period.

The environmental performance of the Project was generally satisfactory.

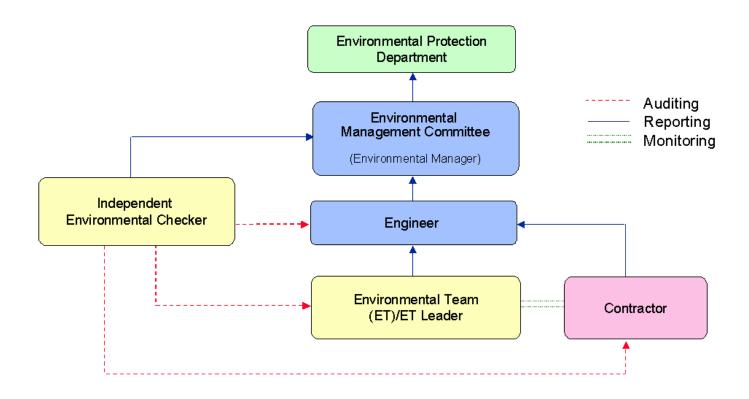


Figure A.1 Organisation of EM&A Programme at Construction Phase

Appendix B Action and Limit Levels for Air Quality and Noise Monitoring

B.1. Air

Table B.1 Action and Limit Levels for 1-hour and 24-hour TSP

	Action Level, μg/m ³	Limit Level, μg/m³
1-hour TSP*	340	500
24-hour TSP	190	260

* No Action/Limit Level for 1-hour TSP is applied to AM4 where no real time dust monitor is installed.

B.2. Noise

Table B.2 AL Levels for Construction Noise (Other than Percussive Piling)

Parameters	Action	Limit
Noise Levels at the NSR's at Long Tsai Tsuen/Hung Shing Ye and school within the village of Tai Wan San Tsuen predicted by the noise alarm monitoring system Manual noise monitoring at the nearest Pak Kok Tsui residences to cable landing points N4 and N5	When one or more documented complaints are received	 a. 75 dB(A) in L_{Aeq,30 min} (07:00-19:00 hrs on normal weekdays) (Note 1) b. subject to statutory control under the Noise Control Ordinance (07:00-23:00 hrs on holidays and 19:00-23:00 hrs on all other days). Set to 60 dB(A) in L_{Aeq,5 min} c. subject to statutory control under the Noise Control Ordinance (23:00-07:00 hrs of next day). Set to 45 dB(A) in
		L _{Aeq,5 min}
NI.4.		

Note:

1. For educational institution, the limit level shall be 70 dB(A), reduced to 65 dB(A) during examination periods.

Appendix C Environmental Monitoring Schedule

Table C.1 Monitoring schedule for 24hr and 1hr TSP monitoring for Lamma Extension Construction (September 2022 to December 2022)

24hr TSP Monitoring	1hr TSP Monitoring
4/September/2022	4/September/2022 1500hr to 1800hr
10/September/2022	10/September/2022 1500hr to 1800hr
16/September/2022	16/September/2022 1500hr to 1800hr
22/September/2022	22/September/2022 1500hr to 1800hr
28/September/2022	28/September/2022 1500hr to 1800hr
4/October/2022	4/October/2022 1500hr to 1800hr
10/October/2022	10/October/2022 1500hr to 1800hr
16/October/2022	16/October/2022 1500hr to 1800hr
22/October/2022	22/October/2022 1500hr to 1800hr
28/October/2022	28/October/2022 1500hr to 1800hr
3/November/2022	3/November/2022 1500hr to 1800hr
9/November/2022	9/November/2022 1500hr to 1800hr
15/November/2022	15/November/2022 1500hr to 1800hr
21/November/2022	21/November/2022 1500hr to 1800hr
27/November/2022	27/November/2022 1500hr to 1800hr
3/December/2022	3/December/2022 1500hr to 1800hr
9/December/2022	9/December/2022 1500hr to 1800hr
15/December/2022	15/December/2022 1500hr to 1800hr
21/December/2022	21/December/2022 1500hr to 1800hr
27/December/2022	27/December/2022 1500hr to 1800hr

APPENDIX D AIR QUALITY MONITORING RESULTS

Site: Lamma Power Station Extension

Month: September 2022

24 hour TSP Measurement:-

		TSP concentration (μg/m³)				Weather Information (From Hong Kong Observatory)		
Date	Reservoir (AM1)	East Gate (AM2)	Ash Lagoon (AM3)	Tai Yuen Village (AM4)	Mean Wind Speed (km/hr)	Prevailing Wind Dir.	Mean R.H.	
4/9/2022	66	33	50	39	13.7	360	55	
10/9/2022	66	48	47	33	11.0	70	76	
16/9/2022	72	54	61	57	7.9	250	63	
22/9/2022	44	22	41	22	24.8	80	73	
28/9/2022	30	13	20	13	49.1	80	73	

1 hour TSP Measurement:-

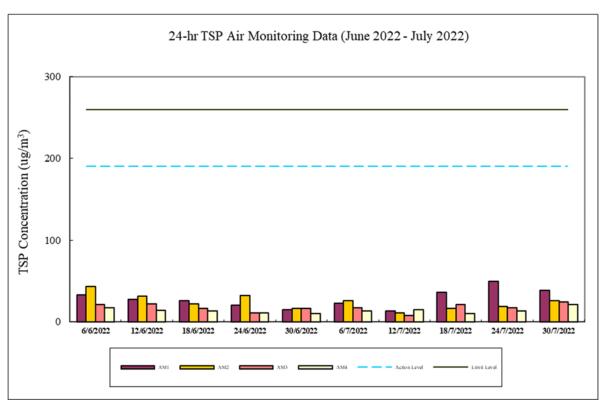
		TSP concentration (μg/m³)				
Date	Time	Reservoir (AM1)	East Gate (AM2)	Ash Lagoon (AM3)		
4 /0 /0 0 0	15:00 - 15:59	72	39	50		
4/9/2022	16:00 - 16:59	56	31	47		
	17:00 - 17:59	60	28	57		
	15:00 - 15:59	64	44	43		
10/9/2022	16:00 - 16:59	79	46	51		
	17:00 - 17:59	78	46	55		
	15:00 - 15:59	107	67	85		
16/9/2022	16:00 - 16:59	92	56	75		
	17:00 - 17:59	84	53	64		
	15:00 - 15:59	43	24	41		
22/9/2022	16:00 - 16:59	44	20	37		
	17:00 - 17:59	38	19	37		
	15:00 - 15:59	26	15	21		
28/9/2022	16:00 - 16:59	26	14	21		
	17:00 - 17:59	26	13	21		

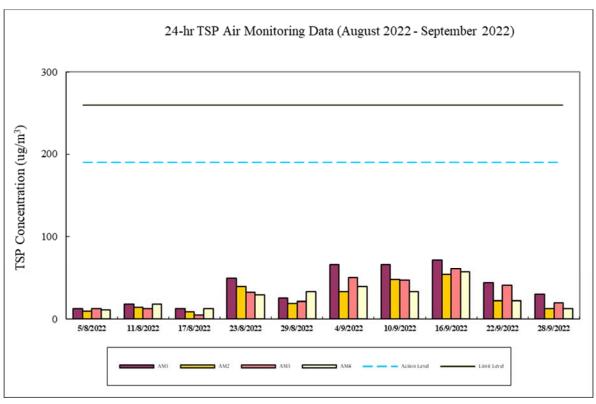
1-hr TSP 24-hr TSP (μg/m³) (μg/m³) 340 190 500 260

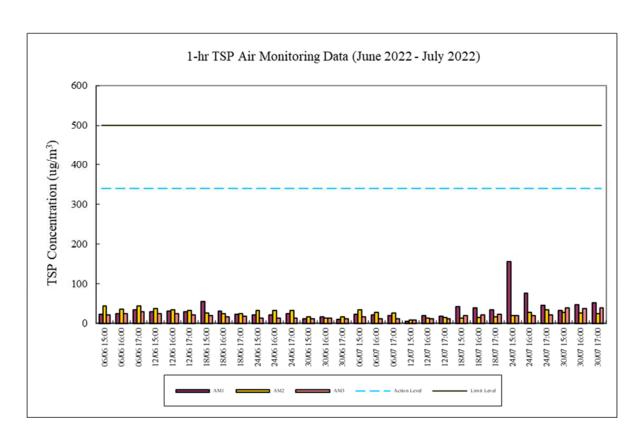
Action Level 340 190 Limit Level 500 260 Calibration: Calibration details are shown in appendix F.

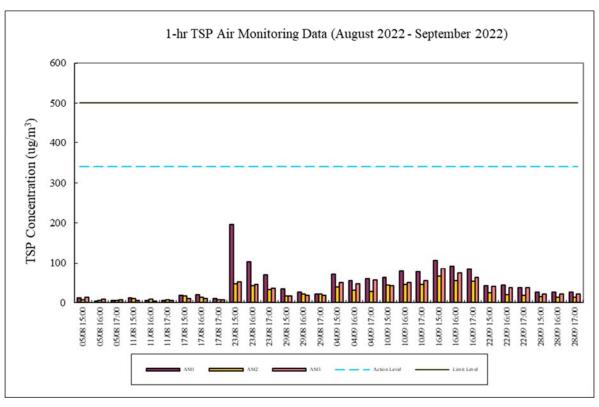
Equipment used:

Equipment useu.				
Location	1-hr TSP	24-hr TSP TEOM		
Reservoir, East Gate and Ash Lagoon	TEOM			
Tai Yuen Village	-	MINIVOL Portable Sampler		









Appendix E Continuous Noise Monitoring Results for September 2022

Site: Lamma Power Station Extension Construction

Measurement Location: Ash Lagoon and Ching Lam

Measurement Parameter: 30-min Leq (07:00-19:00 hrs on normal weekdays)

5-min Leq (07:00-23:00 hrs on holidays and 19:00-23:00 hrs on all other days, and 23:00-

07:00 hrs of next day)

Noise Equipment: B&K 2250 sound level meters and B&K 4231 sound

Level calibrator

Lab. Calibration Date: B&K 2250 sound level meters - 21/10/2021 (Ash Lagoon)

03/09/2021 (Ching Lam)

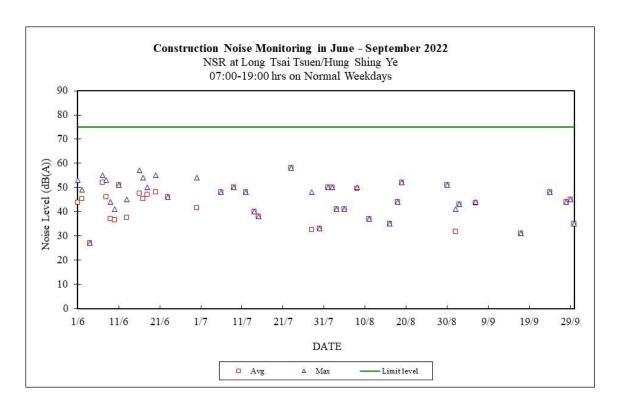
B&K 4231 calibrator (21/10/2021)

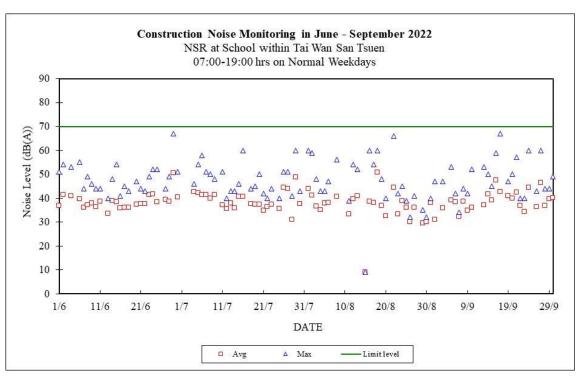
Date	Time	Calculated Noise Level at NSR at Long Tsai Tsuen/Hung Shing Ye (dB(A))		Limit Noise Level (dB(A))	Calculated Noise Level at NSR at the school within Tai Wan San Tsuen (dB(A))		Limit Noise Level (dB(A))
		Max	Avg		Max	Avg	
01/09/2022	07:00-19:00	41	32	75	47	31	70
01/09/2022	19:00-23:00	25	25	60	46	39	60
01/09/2022	23:00-07:00	44	36	45	45	39	45
02/09/2022	07:00-19:00	43	43	75			70
02/09/2022	19:00-23:00	35	34	60	52	45	60
02/09/2022	23:00-07:00	26	24	45	45	32	45
03/09/2022	07:00-19:00			75	47	36	70
03/09/2022	19:00-23:00			60	53	47	60
03/09/2022	23:00-07:00			45	43	34	45
04/09/2022	07:00-23:00	40	30	60	51	36	60
04/09/2022	23:00-07:00	43	39	45	44	34	45
05/09/2022	07:00-19:00			75	53	39	70
05/09/2022	19:00-23:00			60	48	40	60
05/09/2022	23:00-07:00	40	39	45	45	37	45
06/09/2022	07:00-19:00	44	44	75	42	38	70
06/09/2022	19:00-23:00			60	42	39	60
06/09/2022	23:00-07:00			45	44	38	45
07/09/2022	07:00-19:00			75	34	32	70
07/09/2022	19:00-23:00			60	44	34	60
07/09/2022	23:00-07:00	34	34	45	41	36	45
08/09/2022	07:00-19:00			75	44	39	70
08/09/2022	19:00-23:00			60	40	35	60
08/09/2022	23:00-07:00			45	43	36	45
09/09/2022	07:00-19:00			75	42	35	70
09/09/2022	19:00-23:00			60	45	38	60
09/09/2022	23:00-07:00			45	43	37	45
10/09/2022	07:00-19:00			75	52	36	70
10/09/2022	19:00-23:00			60	49	42	60
10/09/2022	23:00-07:00	44	40	45	45	36	45
11/09/2022	07:00-23:00	48	45	60	42	35	60
11/09/2022	23:00-07:00	19	19	45	41	35	45
12/09/2022	07:00-23:00			60	49	37	60
12/09/2022	23:00-07:00	45	40	45	45	37	45
13/09/2022	07:00-19:00			75	53	37	70
13/09/2022	19:00-23:00			60	49	40	60
1 -0/00/2022	13.00 23.00		34	45	45	37	

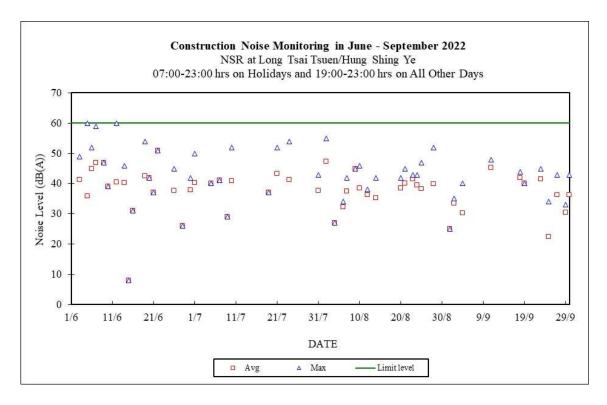
		ı					
14/09/2022	07:00-19:00			75	50	42	70
14/09/2022	19:00-23:00			60	58	38	60
14/09/2022	23:00-07:00			45	40	35	45
15/09/2022	07:00-19:00			75	45	39	70
15/09/2022	19:00-23:00			60	50	38	60
15/09/2022	23:00-07:00	28	28	45	40	35	45
16/09/2022	07:00-19:00			75	59	47	70
16/09/2022	19:00-23:00			60	49	41	60
16/09/2022	23:00-07:00			45	45	35	45
17/09/2022	07:00-19:00	31	31	75	67	43	70
17/09/2022	19:00-23:00			60	51	42	60
17/09/2022	23:00-07:00	42	35	45	45	39	45
18/09/2022	07:00-23:00	44	42	60	49	37	60
18/09/2022	23:00-07:00	43	36	45	43	35	45
19/09/2022	07:00-19:00			75	47	41	70
19/09/2022	19:00-23:00	40	40	60	49	42	60
19/09/2022	23:00-07:00	43	39	45	42	35	45
20/09/2022	07:00-19:00			75	50	40	70
20/09/2022	19:00-23:00			60	43	38	60
20/09/2022	23:00-07:00	43	35	45	43	36	45
21/09/2022	07:00-19:00			75	57	42	70
21/09/2022	19:00-23:00			60	50	41	60
21/09/2022	23:00-07:00	40	39	45	44	36	45
22/09/2022	07:00-19:00			75	40	37	70
22/09/2022	19:00-23:00			60	48	39	60
22/09/2022	23:00-07:00	39	35	45	41	35	45
23/09/2022	07:00-19:00			75	40	34	70
23/09/2022	19:00-23:00	45	42	60	43	34	60
23/09/2022	23:00-07:00	43	41	45	43	38	45
24/09/2022	07:00-19:00	48	48	75	60	45	70
24/09/2022	19:00-23:00			60	43	33	60
24/09/2022	23:00-07:00	43	39	45	42	39	45
25/09/2022	07:00-23:00	34	23	60	41	34	60
25/09/2022	23:00-07:00	45	39	45	45	39	45
26/09/2022	07:00-19:00			75	43	36	70
26/09/2022	19:00-23:00			60	50	41	60
26/09/2022	23:00-07:00	44	37	45	44	34	45
27/09/2022	07:00-19:00			75	60	46	70
27/09/2022	19:00-23:00	43	36	60	43	34	60
27/09/2022	23:00-07:00	45	41	45	44	37	45
28/09/2022	07:00-19:00	44	44	75	44	37	70
28/09/2022	19:00-23:00			60	45	37	60
28/09/2022	23:00-07:00	43	36	45	44	37	45
29/09/2022	07:00-19:00	45	45	75	44	40	70
29/09/2022	19:00-23:00	33	31	60	48	40	60
29/09/2022	23:00-07:00	44	31	45	45	38	45
30/09/2022	07:00-19:00	35	35	75	49	40	70
30/09/2022	19:00-23:00	43	36	60	57	49	60
30/09/2022	23:00-07:00			45	45	42	45

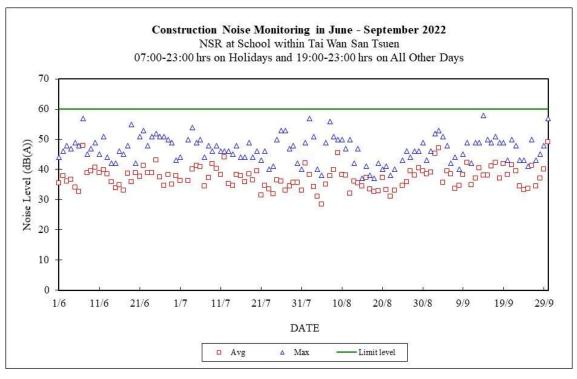
Note

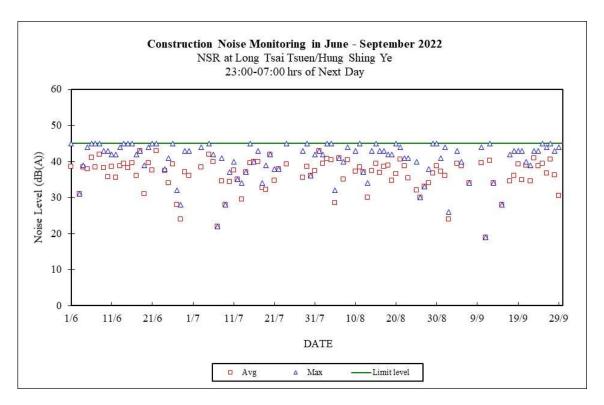
- a. "---" represents the measured noise monitoring data lower than the established notional background level/discarded under strong wind.
- b. Continuous noise monitoring was also carried out at holidays & evening-time (07:00-23:00 hrs on holidays and 19:00-23:00 hrs on all other days) and night-time (23:00-07:00 hrs of next day).

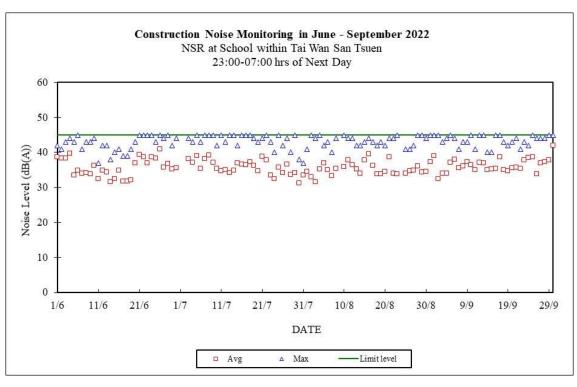












Appendix F

The QA/QC Procedures and Results

The Hongkong Electric Co., Ltd. Lamma Power Station Extension TEOM Continuous Dust Monitor Data Quality Assurance Log Sheet

Month: September Year: 2022

Reservoir (AM1)				
Date	Frequency (Hz) (240 - 275)	Operation Mode (Mode 4)	Main Flow (I/min) (2.70 - 3.30)	Bypass Flow (I/min) (12.30 - 15.04)
4/9/2022	270.988	4	2.81	10.31
10/9/2022	270.227	4	2.87	10.31
16/9/2022	269.251	4	2.82	10.31
22/9/2022	268.522	4	2.86	10.31
28/9/2022	267.913	4	2.88	10.31

East Gate (AM2)				
Date	Frequency (Hz) (240 - 275)	Operation Mode (Mode 4)	Main Flow (I/min) (2.70 - 3.30)	Bypass Flow (I/min) (12.30 - 15.04)
4/9/2022	252.192	4	2.74	13.44
10/9/2022	253.129	4	3.06	13.55
16/9/2022	252.414	4	2.83	13.38
22/9/2022	252.046	4	2.19	13.44
28/9/2022	251.796	4	2.30	13.54

Ash Lagoon (AM3)				
Date	Frequency (Hz) (240 - 275)	Operation Mode (Mode 4)	Main Flow (I/min) (2.70 - 3.30)	Bypass Flow (I/min) (12.30 - 15.04)
4/9/2022	257.512	4	2.52	13.68
10/9/2022	256.914	4	2.26	13.68
16/9/2022	258.437	4	3.00	13.68
22/9/2022	257.809	4	2.84	13.69
28/9/2022	257.320	4	2.56	13.68

Maintenance Record					
	Reservoir	East Gate	Ash Lagoon		
TEOM Filter Exchange	√	1	/		
Clean TSP Inlet	/	<i>y</i>	/		
Replace flow in-line filter	√	√	/		
Pump Repair					
Leak Check					
Flow audit					
Flow Controller Calibration					
A/C filter cleaning					

Remarks:

Prepared by: Chris Chan

Checked by: HY Chan

The Hongkong Electric Co., Ltd. Mini Volume Air Sampler Site Visit Log Sheet

Attendance Log	Site Name: Tai Yuen Vill	and (AMA)
Allendance Lou	Olle Name, Tai Tuen Viii	age (Alvia)

Date/Time	Staff Name
20/09/2022 / 10:15	WM TAM

Equipment / Item

Equipment / Item	Serial No. / No.
MINIVOL	5580
Used filter paper no.	MS20
New filter paper no.	MS21

Type of filter: Glass-fibre

Calibration is performed by using Drycal DC-2 Flow Calibrator
 std. L/min set point is recommended

Before: <u>5.043</u>

After: <u>5.043 (No adjustment)</u>

II. General Services

Clean Rotameter: Yes
 Clean / Replace Pump Valves: No
 Clean / Replace Pump Diaphragms: No
 Clean Impaction Inlet: Yes
 Replace Timer Battery Every 6 months: No
 Replace Inlet Filter: Yes

Remarks 1 4 1

N/A

Conducted by: <u>VMM TAM</u> Checked by: <u>SM Hon</u>

The Hongkong Electric Co., Ltd. Lamma Power Station Extension Noise Monitoring Station Site Visit Log Sheet

Location: Ching Lam

Date/Time	Staff Attended	
13/9/2022 / 15:00	WM Tam/Pako Yu	

Equipment	Serial No.
B&K 2250	3008903

1. Calibration

Acoustic calibrator: B&K 4231 (S/N: 3014754)

Noise level measured in calibration: 93.7 (94 ±1.0 dBA)

2. Weather Conditions

- a. Fine
- b. Calm

3. Remark/Observation

N/A

Prepared by: <u>VVM Tam</u> Checked by: <u>TL Chu</u>

The Hongkong Electric Co., Ltd. Lamma Power Station Extension Noise Monitoring Station Daily Calibration Record

Date		n: Ash Lagoon
Date	Calibration Results	Deviation from Reference (dB)
01/09/2022	Passed	0.03
02/09/2022	Passed	0.05
03/09/2022	Passed	0.05
04/09/2022	Passed	0.06
05/09/2022	Passed	0.05
06/09/2022	Passed	0.02
07/09/2022	Passed	0.03
08/09/2022	Passed	0.03
09/09/2022	Passed	0.03
10/09/2022	Passed	0.03
11/09/2022	Passed	0.04
12/09/2022	Passed	0.06
13/09/2022	Passed	0.05
14/09/2022	Passed	0.03
15/09/2022	Passed	0.04
16/09/2022	Passed	0.03
17/09/2022	Passed	0.04
18/09/2022	Passed	0.05
19/09/2022	Passed	0.03
20/09/2022	Passed	0.02
21/09/2022	Passed	0.02
22/09/2022	Passed	0.03
23/09/2022	Passed	0.01
24/09/2022	Passed	0.03
25/09/2022	Passed	0.03
26/09/2022	Passed	0.03
27/09/2022	Passed	0.03
28/09/2022	Passed	0.02
29/09/2022	Passed	-0.03
30/09/2022	Passed	0.01

Remarks:

- The B&K sound level meter at the noise monitoring station has an advanced feature of internal calibration checking (viz. Charge Injection Calibration (CIC)). CIC is a B&K patented method for in situ verification of the integrity of the entire sound measurement chain (including microphone, preamplifier and cabling).
- 2. The acceptance criterion of deviation from reference is \pm 0.5 dB.

Appendix G Event/Action Plans

Table G.1 Event and Action Plans for Air Quality

Event	Monitoring		Action		
	ET Leader	IEC	Engineer	Contractor	
Action Level					
Exceedance of one sample	Identify source Inform Engineer and IEC verbally Repeat measurement to confirm finding	Check monitoring data submitted by ET and advise Engineer.	Notify Contractor Checking monitoring data and contractor's working methods	Rectify any unacceptable practice amend any working methods if appropriate	
Exceedance of two or more consecutive samples	Identify source Inform Engineer and IEC verbally Repeat measurement to confirm finding Increase monitoring frequency Discuss with Engineer and Contractor on remedial actions required If exceedance continues, arrange meeting with Engineer If exceedance stops, discontinue additional monitoring	Check monitoring data submitted by ET and advise Engineer. Provide feedback to the Engineer on the remedial actions proposed by the ET / Contractor Advise Engineer on the effectiveness of the proposed remedial measures Verify the implementation of the remedial measures	Confirm receipt of notification of failure in writing Notify contractor Checking monitoring data and contractor's working methods Discuss proposed remedial actions with the ET and Contractor Ensure remedial actions properly implemented	Submit proposals for remedial actions to Engineer within 3 working days of notifications Implement the agreed proposals Amend proposal if appropriate	
Limit level					
Exceedance of one sample	Repeat measurement to confirm finding. Identify the source(s) of the impact. If the exceedance is found to be valid and due to the Construction works, verbally advise the Contractor, Engineer and IEC, and inform the EPD of the exceedance, as soon as practicable. Increase monitoring frequency to daily Assess the effectiveness of the contractor's remedial actions and keep Engineer, IEC and EPD informed of the results	Check monitoring data submitted by ET and advise Engineer Provide feedback to the Engineer on the remedial actions proposed by the ET / Contractor Advise Engineer on the effectiveness of the proposed remedial measures Verify the implementation of the remedial measures	Confirm receipt of notification of failure in writing Notify Contractor Checking monitoring data and Contractor's working method Discuss with ET and Contractor on remedial actions to be provided Ensure remedial measures properly implemented	Take immediate action to avoid further exceedance Submit proposals for remedial actions to Engineer within 3 working days of notifications Implement the agreed proposals Amend proposal if appropriate	
Exceedance of two or more	Identify source	Provide feedback to the Engineer on the remedial actions proposed by the	Confirm receipt of notification of	Take immediate action to	

Event	Monitoring		Action	
	ET Leader	IEC	Engineer	Contractor
consecutive	If the exceedance is found to be valid	ET / Contractor	failure in writing	avoid further exceedance
samples	and due to the construction works, verbally advise the Contractor, Engineer	Advise Engineer on the effectiveness of the proposed remedial measures	Checking monitoring data and Contractor's working methods	Submit proposals for remediactions to Engineer within 3
	and IEC, and inform the EPD of the exceedance as soon as practicable.	Verify the implementation of the	Notify Contractor	working days of notification
		remedial measures	Discuss proposed remedial actions with ET and Contractor	Implement the agreed proposals
			Ensure remedial measures properly implemented	Resubmit proposals if probl still not under control
			If exceedance continues, consider what portion of the work is	Stop the relevant portion of works as determined by the
			responsible and instruct the Contractor to stop the portion of work until the exceedance is abated	Engineer until the exceedance is abated

Table G.2 Event and Action Plans for Construction Noise

Exceedance	ET Leader	IEC	Engineer	Contractor
Action Level	Undertake noise measurement/check monitoring data to establish validity of complaint.	Review the analysed results submitted by the ET.	Notify Contractor of the complaint if proven.	Submit proposals for remedial actions to Engineer.
	If the complaint is valid, inform Engineer and IEC verbally.	Review the remedial measures proposed by the Contractor and advise the Engineer and ET accordingly.	Check Contractor's working methods and advise IEC and ET accordingly.	Amend proposals if required by the Engineer.
	Identify the source(s) of the noise.	Verify the implementation of the remedial measures.	Remind the Contractor of his contractual obligations and discuss remedial actions.	Implement the remedial actions immediately upon instruction from the Engineer.
	Discuss remedial actions required with Contractor and Engineer.		Keep the Contractor informed of the efficacy of remedial actions.	Liaise with the Engineer to optimise the effectiveness of the agreed mitigation.
	Increase manual monitoring frequency to assess efficacy of remedial measures.			
	If exceedance continues, review implementation of appropriate mitigation measures.			
Limit Level	Repeat manual measurement/check monitoring data to confirm findings.	Agree potential remedial actions with Engineer, ET and Contractor.	Notify Contractor of exceedance.	Take immediate action to avoid further exceedance.
	Identify the source(s) of the impact. If the exceedance is found to be valid and due to	Review Contractor's remedial actions / measures to ensure their effectiveness	Check Contractor's working methods and advise IEC and ET accordingly.	Submit proposals for remedial actions to Engineer.
	the Construction works, verbally advise the Contractor, Engineer and IEC, and inform the EPD of the exceedance, as soon as practicable.	actor, Engineer and IEC, and inform accordingly. PD of the exceedance, as soon as	Discuss with Contractor the remedial actions to be implemented.	Amend proposals if required by the Engineer.
		Verify the implementation of the remedial measures	Keep the Contractor informed of the efficacy of remedial actions.	Implement remedial actions immediately
	Discuss remedial actions required with Engineer.		If the exceedance continues, consider	upon instruction from the Engineer.
	Increase manual monitoring frequency to assess efficacy of remedial measures.		what portion of the work is responsible and instruct the Contractor to stop the portion of work until the exceedance is abated	If the exceedance continues, consider what portion of the work is responsible and, as instructed by the Engineer, stop the portion of work until the exceedance is abated

Table G.3 Event and Action Plans for Water Quality

Exceedance	ET Leader	IEC	Engineer	Contractor
Action level exceeded on one sampling day	Verbally inform the Contractor, and IEC. Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with Engineer and Contractor; Repeat measurement on next day of exceedance.	Provide feedback to the Engineer on the remedial actions proposed by the ET / Contractor Advise Engineer on the effectiveness of the proposed remedial measures Verify the implementation of the remedial measures	Discuss with Contractor the proposed mitigation measures; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures.	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Propose and discuss mitigation measures with Engineer; Implement the agreed mitigation measures.
Action level exceeded on more than one consecutive sampling day	Repeat in-situ measurements to confirm findings; Identify source(s) of impact; Inform Contractor and IEC; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measure with Engineer and Contractor; Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; Repeat measurement on next day of exceedance.	Provide feedback to the Engineer on the remedial actions proposed by the ET / Contractor Advise Engineer on the effectiveness of the proposed remedial measures Verify the implementation of the remedial measures	Discuss with ET and Contractor on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures.	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Propose mitigation measures to Engineer within 3 working days and discuss with ET and Engineer; Implement the agreed mitigation measures.
Limit level exceeded on one sampling day	Verbally inform the Contractor, IEC and the EPD of the exceedance; Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Check monitoring data, all plant,	Provide feedback to the Engineer on the remedial actions proposed by the ET / Contractor Advise Engineer on the effectiveness of the proposed remedial measures Verify the implementation of the remedial measures	Discuss with Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Propose mitigation measures to Engineer

Exceedance	ET Leader	IEC	Engineer	Contractor	
	equipment and Contractor's working methods;		implemented mitigation measures.	within 3 working days and discuss with Engineer;	
	Discuss mitigation measure with Engineer and Contractor;			Implement the agreed mitigation measures.	
	Ensure mitigation measures are implemented;				
	Increase the monitoring frequency to daily until no exceedance of Limit level.				
Limit level exceeded by more than one	Repeat in-situ measurement to confirm findings; Identify source(s) of impact;	Provide feedback to the Engineer on the remedial actions proposed by the ET / Contractor	Discuss with Contractor on the proposed mitigation measures; Request Contractor to critically	Inform the Engineer and confirm notification of the non-compliance in writing;	
consecutive sampling day	Inform Contractor, IEC and EPD;	Advise Engineer on the effectiveness of the	review the working methods;	Rectify unacceptable practice;	
ampning day	Check monitoring data, all plant, equipment and Contractor's	Proposed remedial measures Verify the implementation of the remedial measures	Make agreement on the mitigation measures to be implemented;	Check all plant and equipment; Consider changes of working methods;	
	working methods;		Assess the effectiveness of the implemented mitigation measures; Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine works until no exceedance of the Limit Level.	Propose mitigation measures to Engineer within 3 working days and discuss with Engineer; Implement the agreed mitigation measures	
	Discuss mitigation measure with Engineer and Contractor;				
	Ensure mitigation measures are implemented;				
	Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days.			As directed by the Engineer, to slow down or to stop all or part of the marine work	

Appendix H Summary of Site Audit Findings

L12 Civil and Building Works
<u>Dates of Inspection</u> : 6/9/2022, 13/9/2022, 20/9/2022 and 27/9/2022.
Summary of Findings
General
- No environmental deficiency identified.
Air Quality
- No environmental deficiency identified.
Noise
- No environmental deficiency identified.
Water Quality
- No environmental deficiency identified.
Waste Management
- No environmental deficiency identified.

L12 Mechanical, Electrical, Instrumentation & Control Erection Works Dates of Inspection: 1/9/2022, 8/9/2022, 15/9/2022, 22/9/2022 and 29/9/2022. Summary of Findings

General

No environmental deficiency identified.

Air Quality

- No environmental deficiency identified.

Noise

No environmental deficiency identified.

Water Quality

No environmental deficiency identified.

Waste Management

No environmental deficiency identified.

Summary of EMIS

Power Station – (Part B of EIA Report)

Construction Phase Mitigation Measures and their Implementation

EM&A Log Ref.	Mitigation Measures	Implementation Status
	AIR QUALITY	
A1	For general construction works, the dust control measures stipulated under the Air Pollution Control (Construction Dust) Regulation shall be complied with, such as:	
	the haul roads shall be sprayed with water to keep the entire road surface wet.	С
	the load carried by vehicle shall be covered by impervious sheeting to ensure no leakage of dusty materials from the vehicle.	С
	the heights from which fill materials are dropped shall be controlled to a practical level to minimise the fugitive dust arising from unloading.	С
A2	For the concrete batching plant, the following control measures are recommended:	
	• loading, unloading, handling, transfer or storage or any dusty materials shall be carried out in a totally enclosed system.	N/A
	The materials which may generate airborne dust emissions shall be wetted by water spray system.	N/A
	All receiving hoppers shall be enclosed on three sides up to 3m above unloading point.	N/A
	All conveyor transfer points shall be totally enclosed.	N/A
	WATER QUALITY	
B1	Silt curtains shall be installed on the eastern, southern and north western sides of the reclamation site during dredging for the reclamation construction. This is a required mitigation measure for the construction works and shall be implemented prior to the commencement of bulk dredging. **	N/A
В3	As a necessary operational constraint combined bulk dredging and sand filling for site formation shall not be permitted at any time. In addition, sand filling for site platform shall take place behind constructed sea walls which pierce the water surface. **	N/A
B4	HEC shall ensure design to divert all storm drains away from Hung Shing Ye Bay. **	N/A
B5	Sand fill for the rubble mound seawalls shall be placed by controlled pumping down the trailer arm. **	N/A
В6	EM&A shall confirm the acceptability of any impacts during construction and should any unacceptable impacts be found then one or more of the following mitigation measures shall be implemented: **	N/A
	 reducing the number of dredgers working at any one time; reducing the rate of working of the dredgers; temporary suspension of operations; phasing of the works so that dredging / filling is only undertaken at certain stages of the tidal cycle. 	

EM&A Log Ref.	Mitigation Measures	Implementation Status
В7	In addition to the above specific measures the following general working procedures shall be adopted. **	
	fully-enclosed or watertight grabs shall be used to minimise loss of sediment during the raising of loaded grabs through the water column;	N/A
	the descent speed of grabs shall be controlled to minimise the seabed impact speed and to reduce the volume of over dredging;	N/A
	barges shall be loaded carefully to avoid splashing of material;	N/A
	all barges used for the transport of dredged materials shall be fitted with tight bottom seals in order to prevent leakage of material during loading and transport;	N/A
	all barges shall 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 maintained to ensure that the decks are not washed by wave action;	N/A
	• the speed of trailer dredgers shall be controlled to prevent propeller wash from stirring up the sea bed sediments;	N/A
	"rainbowing" sand fill from trailer dredgers shall not be permitted; and	N/A
	the works shall cause no visible foam, oil, grease or litter or other objectionable matter to be present in the water within and adjacent to the dredging site and along the route to the disposal site.	N/A
B8	Cumulative impacts shall be assessed through EM&A. Co-ordination with the EM&A consultants for other projects to determine if any exceedances are caused by the other projects or by HEC's activities. Should monitoring results indicate exceedances at sensitive receivers due to HEC's activities, then the above described mitigation measures shall be implemented until impacts reduce to acceptable levels.	N/A
	NOISE	
C1	General noise mitigation measures shall be employed at all work sites throughout the construction phase.	С
C2	Mitigate against general construction noise during Sunday's and public holidays, either at source with portable noise barriers, or by rescheduling of some PMEs to less sensitive time periods.	С
С3	Mitigate against night time noise from dredging equipment, with silencers or mufflers. **	N/A
D.1	LANDSCAPE & VISUAL IMPACTS	
D1	The following mitigation measures shall be allowed for landscape and visual improvement:	
	Use rubble mound seawall along south and west edges of the reclamation to provide a more natural look.	С
	Break the mass of main buildings by varying the height/division into smaller units.	С
	Plant trees and vegetation for screening.	С
	Adopt colour scheme to blend the buildings into the scenery.	С

EM&A Log Ref.	Mitigation Measures	Implementation Status
	WASTE MANAGEMENT	
E1	HEC to submit a Waste Management Plan for the construction phase to EPD. The Plan shall be verified by the IEC and shall describe the arrangements for avoidance, reuse, recovery and recycling, storage, collection, treatment and disposal of different categories of waste to be generated from the construction activities and shall take into account the recommendations of the EIA report.	С
	Dredging Waste	
E2	All vessels for marine transportation of dredged sediment shall be fitted with tight fitting seals to their bottom openings to prevent leakage of materials. In addition, loading of barges and hoppers shall be controlled to prevent splashing of dredged material into the surrounding water, and barges or hoppers should under no circumstances be filled to a level which shall cause the overflowing of materials or polluted water during loading or transportation**	N/A
	Storage, Collection and Transport of Waste	
E3	Minimise windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed containers.	С
	• Obtain the necessary waste disposal permits from the appropriate authorities, if they are required, in accordance with the Waste Disposal Ordinance (Cap.354), Waste Disposal (Chemical Waste) (General) Regulation (Cap.354), the Crown Land Ordinance (Cap 28), Dumping at Sea Ordinance (Cap 466) and Work Branch Technical Circular No. 22/92, Marine Disposal of Dredged Mud.	С
	Disposal of waste at Licensed sites;	С
	Develop procedures such as a ticketing system to facilitate tracking of marine mud and chemical waste, and to ensure that illegal disposal does not occur;	С
	 Segregate and sort the waste materials into 3 categories: public fill (e.g. concrete and rubble) for re-use on-site or disposal at a public filling area; re-use and/or recycling waste (e.g. steel and other metals); waste which cannot be re-used and/or recycled (e.g. wood, glass and plants) for landfill disposal. 	С
	 plastic) for landfill disposal. The sorting process shall be carefully monitored to avoid missing of the 3 categories. Different types of wastes shall be stockpiled and stored in different containers or skips to enhance re-use or recycling of materials and their proper disposal. 	
	Maintain records of the quantities of wastes generated and disposed off-site for each category of waste.	С
E4	Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, shall be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes	С
		
	LAND CONTAMINATION	
F1	No land Contamination mitigation measures are required during the construction phase.	N/A
	MARINE ECOLOGY	
	<u> </u>	<u>I</u>

EM&A Log Ref.	Mitigation Measures	Implementation Status			
G1	All percussive piling works shall be conducted on reclaimed land to avoid noise impact to marine mammals**				
G2	All construction related vessels shall approach the extension site from the north and via the East Lamma Channel to avoid disturbance to the finless porpoise**	N/A			
G3	Rubble mound seawall to the south and west edges of the reclamation to enhance recolonisation of marine organisms**				
G4	Artificial Reefs of a volume not less than 400 m ³ shall be deployed in a location to be decided upon consultation with the Director of Agriculture and Fisheries to serve the purpose of an Additional Habitat Enhancement Measure.**	N/A			
	FISHERIES				
H1	No Fisheries-specific mitigation measures are required during the construction phase.	N/A			
	RISK ASSESSMENT				
I1	No risk mitigation measures are required during the construction phase.	N/A			

Remarks:

No dredging and reclamation work would be involved for L12 construction Compliance with mitigation measure Non-compliance with mitigation measure **

C

NC

Not Applicable N/A

Y DATES & MILESTONES	1123 days	Fri 4/12/20	Sun 31/12/23	Oct 2022 Nov 2022	Dec 2022
ontract Period Leferred Work Completion Key Dates ubstantial Completion of the Whole Contract Works (1123 Days)	1123 days 784 days 0 days	Fri 4/12/20 Mon 8/11/21 Sun 31/12/23	Sun 31/12/23 Sun 31/12/23 Sun 31/12/23		
TE POSSESSION DATES itel Possession Date as phased site possesion plan and PS1.4.2	513 days 0 days	Fri 4/12/20 Fri 4/12/20	Sun 1/5/22 Fri 4/12/20		
ite Possession Date as phased site possesion plan and PS1.4.2 Ite Possession Date as phased site possesion plan and PS1.4.2	0 days 0 days	Fri 1/1/21 Sat 1/5/21	Fri 1/1/21 Sat 1/5/21		
ite Possession Date as phased site possession plan and PS1.4.2 ite Possession Date as phased site possesion plan and PS1.4.2	0 days 0 days	Fri 1/10/21 Fri 1/4/22	Fri 1/10/21 Fri 1/4/22		
ite Possession Date as phased site possesion plan and PS1.4.2 MPLETION DATES as per PS1.4.2 Time for Completion	0 days 537 days	Sun 1/5/22 Thu 30/9/21	Sun 1/5/22 Tue 21/3/23		
ection A1 (i) - Area south of L12 MSB and L12 HRSG from GL12-F eastwards leading to Chimney Road at Area F1 & 2	0 days	Thu 30/9/21	Thu 30/9/21		
ection A1 (ii) - Supporting structures for overhead cranes of L12 MSB including the associated roof structure except ne roof deferred works	0 days	Mon 1/11/21	Mon 1/11/21		
ection A2 (i) External Works including CW Inlet Culvert at Area F8A ection A2 (ii) External Works including CW Intet Culvert at Area F98	0 days 0 days	Mon 10/1/22 Thu 31/3/22 Fri 11/3/22	Mon 10/1/22 Thu 31/3/22 Fri 11/3/22		
ection A2 (iii) External Works including CW Inlet Culvert at Area FBC ection B1 - Area south of L12 MSB from GL12-F westwards leading to Station Road at Area F3 ection B2 (i)- Southern Part of L12 HRSG areas and its surrounding refer to Area F6B as shown in drawing no	0 days 0 days 0 days	Wed 15/12/21 Thu 30/9/21	Wed 15/12/21 Thu 30/9/21		
53/03/2040 including the foundations for Gas Exhaust Duct ection B2 (ii) - Remaining northern part of LI2 HRSG area and its surrounding at Area F6A and F6C	0 days	Mon 15/11/21	Mon 15/11/21		
ection B2 - (iii) L12 Turbo Block foundation including the L12 MSB ground floor together with the equipment bundations between GL 12-F to 12-H and 12-1 to 12-6 for the installation of power generator, air inlet duct and lube oil	0 days	Mon 28/2/22	Mon 28/2/22		
eservoir ection B2 - (iv) G/F of L12 MSB including the Condenser Pit, Circulating Water Pipe Pit and equipment foundations	0 days	Wed 15/12/21	Wed 15/12/21		
etween GL 12-B to 12-C and 12-1 to 12-6 for the installation of condenser ection C - (i) Roads and external grounds surrounding L12 MSB and L12 HRSG in addition to the southern & eastern	0 days	Sat 15/1/22	Sat 15/1/22		
reas mentioned above in Area F5 ection C - (ii) Whole of L12 MSB including the pipe and cable rack along south façade of L12 MSB with all derground utilities at Area F4 including C.W. Inlet and Outlet Culvert except the deferred works	0 days	Thu 31/3/22	Thu 31/3/22		
section 0 - (iii) Link Bridge between L11 and L12 MSB including their associated A&A at L11 MSB section D - (i) Microwave Antenna Room and Chimney Windshiled for the installation of miscrowave equipment and	0 days 0 days	Sun 10/4/22 Fri 10/6/22	Sun 10/4/22 Fri 10/6/22		
ntenna ection D (iii) - No. 5 Chimney with L12 Steel Flue liner	0 days	Tue 21/3/23	Tue 21/3/23		
ection E (i) Tx Room of Adminintration and Control Building ection E (ii) - G/F,1/F, 2/F & Hoisting Well of Admin. & Control Building	0 days 0 days	Sun 31/10/21 Mon 28/2/22	Sun 31/10/21 Mon 28/2/22		
ection E (iii) - Whole of Admin. And Control Building ection F (i) - Gas Receiving Station and L12 Gas Receiving Station Equipment Room (GRS) Area Extension at Area	0 days 0 days	Tue 31/5/22 Wed 30/11/22	Tue 31/5/22 Wed 30/11/22		Section F (i) - Gas Receiving Station and
14 etion F (ii) - Pipe and Cable rack and external work at Area F9A and F9B	0 days	Tue 31/5/22	Tue 31/5/22		
ection F (iii) - No. 5 CW Equipment Room, pipe and cable rack, external works at Area F10 ection G (i) - External Work surrounding Area F11	0 days 0 days	Wed 31/8/22 Wed 26/10/22	Wed 31/8/22 Wed 26/10/22	and cable rack, external works at Area F10 Section G (ii) - External Works surrounding Area F11 Section G (iii) - External Works at Area F12 & F13	
ection G (ii) - External Works at Area F12 & F13 ection G (iii) - FS Modification works along South Seafront Road at Area F15 ection G (iv) - 275kV cable trenches and External Works at Area F16	0 days 0 days 0 days	Fri 30/9/22 Fri 30/9/22 Fri 30/9/22	Fri 30/9/22 Fri 30/9/22 Fri 30/9/22	y Section G (ii) - External Works at Area F12 & F13 Section G (iii) - FS Modification works along South Seafront Road at Area F15 Section G (iv) - 275kV cable trenches and External Works at Area F16	
ection G (iv) - 275kV cable trenches and External Works at Area F16 ection G (v) - Shunt Reactor Compound and External Works at Area F17 ection G (v) - 275kV cable trenches and External Works at Area F18	0 days 0 days 0 days	Fri 30/9/22 Fri 30/9/22 Wed 1/6/22	Fri 30/9/22 Fri 30/9/22 Wed 1/6/22	Section G (iv) - 27skv Cable trenches and External Works at Area + 16 Section G (v) - Shunt Reactor Compound and External Works at Area F17	
ection G (vi) - 276kV datile trenches and External works at Area F18 ection G (vii) - Flood Wall at No. 4 CW Intake Area along HUA at Area F20A ection G (viii) - Flood wall at No. 5 CW Intake Area along HUA at Area F20B	0 days 0 days	Sun 8/5/22 Fri 30/9/22	Sun 8/5/22 Fri 30/9/22	Seciton G (viii) - Flood wall at No. 5 CW Intake Area along HUA at Area F20B	
eciton G (ix) - Bund wall modification works at South Seafront Road at Area F21 ection G (x) - DAX Cable Diversion Works (from Part I to Part IV)	0 days 0 days	Fri 15/10/21 Sat 31/12/22	Fri 15/10/21 Sat 31/12/22		
ection H - All remaining works shall be completed for reporting completion to BD and ready for OP inspection	0 days	Tue 28/2/23	Tue 28/2/23		
NERAL & PRELIMINARY rst Mobilization	228 days 18 days	Fri 4/12/20 Fri 4/12/20	Mon 19/7/21 Mon 21/12/20		
et up Temporary Site Office and Welfare Factiliites ermit Applications & Statuary Submissions	90 days 120 days	Tue 22/12/20 Mon 22/3/21	Sun 21/3/21 Mon 19/7/21		
dsting Utilities scanning & Excavation Permit over Crane erections	45 days 60 days	Tue 22/12/20 Sun 27/12/20	Thu 4/2/21 Wed 24/2/21		
CHNICAL SUBMISSION AND APPROVAL D Approval & Consent (If required)	314 days 0 days	Thu 10/12/20 Thu 10/12/20	Wed 20/10/21 Thu 10/12/20		
ubmission and Approval of Master Programme fork Execuation Overal Plan submission & approval	14 days 14 days	Fri 11/12/20 Fri 11/12/20	Thu 24/12/20 Thu 24/12/20		
aterial Submissions and approval ethod Statement submission and approval	300 days 300 days	Fri 25/12/20 Fri 25/12/20	Wed 20/10/21 Wed 20/10/21		
IM Model, CSD & CBWD Submission & approval tructure Steelwork Connection Design Submission & BD approval	120 days 45 days	Fri 25/12/20 Tue 29/12/20	Fri 23/4/21 Thu 11/2/21		
tructure Steelwork Shop Drawing & Approval etal Cladding, louvre & windows submission & BD approval	30 days 45 days	Fri 12/2/21 Tue 29/12/20	Sat 13/3/21 Thu 11/2/21		
letal Cladding, louvre & windows shop drawing submission rder, Off Site Fabrication and Delivery (S. Steel & Cladding & louvres)	45 days 120 days	Fri 12/2/21 Mon 29/3/21	Sun 28/3/21 Mon 26/7/21		
LS Submission and BD approval o. 5 Chimney windshield temporary work submission, approval & fabrication	90 days 60 days	Fri 11/12/20 Fri 11/12/20	Wed 10/3/21 Mon 8/2/21		
teel Flue Assessment Report and Design Drawings submission & approval olding Shutters Shop Drawing Submission & Approval abrication & Delivery of Folding Shutters	60 days 30 days 180 days	Tue 9/2/21 Thu 11/2/21 Sat 13/3/21	Fri 9/4/21 Fri 12/3/21 Wed 8/9/21		
abrication & Delivery of Politing Stratters ewage Pump System Design submission & approval abrication & Delivery of Sewage Pump	45 days 180 days	Tue 23/2/21 Fri 9/4/21	Thu 8/4/21 Tue 5/10/21		
ther material submission & approval & delivery ther material submission & approval & delivery	180 days 180 days	Sat 24/4/21 Sat 24/4/21	Wed 20/10/21 Wed 20/10/21		
NSTRUCTION oordination with the Employer's Specialist Contractors	1123 days 562 days	Fri 4/12/20 Fri 15/1/21	Sun 31/12/23 Sat 30/7/22		
Installation of Puddle Pipes at C.W. outlet Culvert Installation of Puddle Pipes at C.W. Inlet Culvert	7 days 7 days	Mon 22/3/21 Thu 27/5/21	Sun 28/3/21 Wed 2/6/21		
Template setting at L12 Turbo Block Foundation Template setting of holding down bolts at HRSG column base	45 days 45 days	Tue 16/11/21 Fri 15/1/21	Thu 30/12/21 Sun 28/2/21		
I-beam / channel base installation on top of transformer foundations at Transformer Area Overhead crane erection at turbine hall using access through a temporary opening at L12 MSB roof between GL12-G	45 days 38 days	Tue 1/6/21 Mon 1/11/21	Thu 15/7/21 Wed 8/12/21		
to 12-H and 12-2 to 12-6 Condenser assembly and erection using access through a temporary façade opening at L12 MSB below 1/F along GL	122 days	Thu 16/12/21	Sat 16/4/22		
12-6 from GL12-B to 12-C including a clear space below 1/F between GL 12-B to 12-C Installation of power train equipment including air inlet duct using access through a temporary façade opening at L12	121 days	Fri 1/4/22	Sat 30/7/22	poling at L12 MSB below 1/F along GL 12-6 from GL12-F to 12-H including a clear space below 1/F or	of the above area
MSB below 1/F along GL 12-6 from GL12-F to 12-H including a clear space below 1/F of the above area Installation of embedded materials such as holding down bolts for equipment foundations - Commencement	O desse	Thu 15/4/21	Thu 15/4/21		
installation or embedded materials such as nothing down bolls for equipment foundations - Commencement ection A1 (i) - Area south of L12 MSB and L12 HRSG from GL12-F eastwards leading to Chimney	0 days 301 days	Fri 4/12/20	Thu 30/9/21		
oction AT () - Area south of L12 MSB and L12 HRSG from GL12-F eastwards leading to Chimney oad at Area F1 & F2 Area Possession & Clearance	301 days	Fri 4/12/20	Sat 2/1/21		
Subletting / Fabrication / Delivery (both for Area F1 and Area F2) Excavation for CW Inlet Culvert (Type D Construction Area)	60 days 14 days	Sun 17/1/21 Tue 1/6/21	Wed 17/3/21 Mon 14/6/21		
Installation CW Inlet Culvert pipe Backfill	70 days 7 days	Tue 15/6/21 Tue 24/8/21	Mon 23/8/21 Mon 30/8/21		
Construction UG Utilities 2m deep below further surface Temporary Paving and handover for plant erection	21 days 3 days	Tue 31/8/21 Tue 28/9/21	Mon 27/9/21 Thu 30/9/21		
ection A1 (ii) - Supporting structures for overhead cranes of L12 MSB including the associated roof ructure except the roof deferred workss	333 days	Fri 4/12/20	Mon 1/11/21		
Area Possession & Clearance Subletting / Fabrication / Delivery	45 days 210 days	Fri 4/12/20 Tue 23/2/21	Sun 17/1/21 Mon 20/9/21		
Complete structural steel erection Install Crane Girders	0 days 11 days	Tue 19/10/21 Tue 12/10/21	Tue 19/10/21 Fri 29/10/21		
Construction of roof slab (except defer work) Touch up and handover for install overhead cranes	14 days 3 days	Tue 12/10/21 Sat 30/10/21	Mon 1/11/21 Mon 1/11/21		
ection A2 (i) External Works including CW Inlet Culvert at Area F8A BD consent for Sheetpile installation	403 days 30 days	Fri 4/12/20 Fri 4/12/20	Mon 10/1/22 Sat 2/1/21		
Subletting / Fabrication / Delivery (both for Area F8A-F8B) Area Possession & Clearance	30 days 14 days	Fri 18/12/20 Sat 2/1/21	Sat 16/1/21 Fri 15/1/21		
Install Sheet pile Installation of Additional sheet Pile at South of area F8A	55 days 7 days	Sat 16/1/21 Sat 17/4/21	Thu 11/3/21 Fri 23/4/21		
BD Consent for ELS Consent for ELS Consent for ELS Consent for ELS Construction of Thrust Box & Manholes,etc	28 days 100 days 15 days	Sat 24/4/21 Fri 16/7/21 Thu 16/9/21	Fri 21/5/21 Sat 23/10/21 Thu 30/9/21		
Construction of Trirust Box & Mannoles,etc Backfill, UG Utilities and Road Paving sction A2 (ii) External Works including CW Intet Culvert at Area F8B	79 days	Sun 24/10/21 Fri 4/12/20	Mon 10/1/22 Thu 31/3/22		
ection A2 (ii) External Works including CW Intel Culvert at Area F8B Area Possession & Clearance BD consent for Sheetipile installation	483 days 30 days 30 days	Mon 1/3/21 Fri 4/12/20	Thu 31/3/22 Tue 30/3/21 Sat 2/1/21		
BD consent for Sheetpile installation Install Sheet pile BD Consent for ELS	90 days 28 days	Fri 2/4/21 Thu 1/7/21	Wed 30/6/21 Wed 28/7/21		
ELS and install CW Inlet Pipe Construction of Thrust Box & Manholes,etc	100 days 15 days	Thu 29/7/21 Wed 1/9/21	Fri 5/11/21 Wed 15/9/21		
Backfill, US Utilities and Road Paving sction A2 (iii) External Works including CW Inlet Culvert at Area F8C	146 days 365 days	Sat 6/11/21 Fri 12/3/21	Thu 31/3/22 Fri 11/3/22		
Area Possession & Clearance Subletting / Fabrication / Delivery (for Area F8C)	30 days 60 days	Fri 12/3/21 Fri 12/3/21	Sat 10/4/21 Mon 10/5/21		
BD consent for Sheetpile installation Install Sheet pile	30 days 62 days	Tue 13/4/21 Thu 13/5/21	Wed 12/5/21 Tue 13/7/21		
BD Consent for ELS ELS and install CW Inlet Pipe (including soil nail installation under 19/83014)	35 days 76 days	Wed 14/7/21 Wed 18/8/21	Tue 17/8/21 Thu 20/1/22		
Construction of Thrust Box & Manholes,etc Backfill, UG Utilities and Road Paving	30 days 20 days	Fri 21/1/22 Sun 20/2/22	Sat 19/2/22 Fri 11/3/22		
ection B1 - Area south of L12 MSB from GL12-F westwards leading to Station Road at Area F3	377 days	Fri 4/12/20	Wed 15/12/21		
Area Possession & Clearance Subletting / Fabrication / Delivery	30 days 120 days	Fri 4/12/20 Fri 25/12/20	Sat 2/1/21 Fri 23/4/21		
Complete CW Pipe Installation & Thrust box Backfill	45 days 30 days	Tue 25/5/21 Fri 9/7/21	Thu 8/7/21 Sat 7/8/21		
	67 days	Mon 20/9/21 Fri 26/11/21	Thu 25/11/21 Wed 15/12/21		
Construction of Storm Drain & Manholes Temp Paving and handover for Condenser Move in	20 days				
Construction of Storm Drain & Manholes Temp Paving and handower for Condenser Move in ection B2- (i) Southern part of L12 HRSG area and its surrounding at Area F6B including the undations for Gas Exhaust Duct	273 days	Fri 1/1/21	Thu 30/9/21		
Construction of Storm Drain & Manholes					

tract No. 19/83002 Lamma Power Station Extension Civil	and Building V	Vorks for U	nit L12	Master Program
Excavation & Construct Pile Caps & Tie Beams & Piers Installation of Pipe Pile for HRSG foundation (VO)	86 days 48 days	Mon 8/3/21 Thu 25/3/21	Thu 19/8/21 Tue 11/5/21	Cet 2022 Nov 2022 Dec 2022
Construction HRSG & Gas Duct foundations Construction of HRSG Equipment Room incl. ABWF & BS (except T&C)	112 days 64 days	Fri 7/5/21 Tue 4/5/21	Fri 3/9/21 Thu 30/9/21	
Construction underground utilities within HRSG Backfill & Construction on-grade slabs & RC plinths on top	55 days 14 days	Mon 19/7/21 Fri 30/7/21	Sat 11/9/21 Mon 27/9/21	
Backfill and Temporary paving Section B2 (ii) - Remaining northern part of LI2 HRSG area and its surrounding at Area F6A and	21 days d F6C 319 days	Fri 10/9/21 Fri 1/1/21	Thu 30/9/21 Mon 15/11/21	
Area Possessiong and Clearance at Area F6A	30 days	Fri 1/1/21	Sat 30/1/21	
Subletting / Fabrication / Delivery (for Area F6A and F6C civil) Construction of Underground pits (HRSG Blowdown sump pit)	90 days 110 days	Sat 2/1/21 Sat 2/1/21	Thu 1/4/21 Wed 21/4/21	
Excavation & Construct Pile Caps & Tie Beams & Piers Construction underground utilities within HRSG	139 days 55 days	Mon 1/2/21 Mon 19/7/21	Sat 10/7/21 Sat 11/9/21	
Construction of Underground pits (GT Oil & Chemical drain pits) Backfill & Construction on-grade slabs & RC plinths on top	15 days 45 days	Thu 5/8/21 Sun 12/9/21	Thu 19/8/21 Tue 26/10/21	
Construct RC Walls Construction of Underground utilities at F6C	90 days 21 days	Thu 22/4/21 Tue 19/10/21	Tue 20/7/21 Mon 8/11/21	
Backfill and Temporary paving Section B2 - (iii) L12 Turbo Block foundation including the L12 MSB ground floor together with	7 days the 452 days	Tue 9/11/21 Fri 4/12/20	Mon 15/11/21 Mon 28/2/22	
equipment foundations between GL 12-F to 12-H and 12-1 to 12-6 for the installation of power generator, air inlet duct and lube oil reservoir				
Area Possession & Clearance Subletting / Fabrication / Delivery (Civil+ABWF+BS for MSBL12)	45 days 150 days	Fri 4/12/20 Fri 25/12/20	Sun 17/1/21 Sun 23/5/21	
Complete excavation at Type A&C Construction Area Excavation & Pile Caps & Tie Beams + Slabs (Turbo Block North)	0 days 75 days	Sun 21/3/21 Sun 31/1/21	Sun 21/3/21 Thu 15/4/21	
Backfill and construction turbine block & equipment foundation Excavation & Pile Caps & Tie Beams + Slabs (Turbo Block South)	85 days 45 days	Tue 1/6/21 Sat 17/4/21	Tue 24/8/21 Mon 31/5/21	
Construction of internal drainage & on-grade slab Construction turbine block columns and upper portion for plant embed installation	90 days 83 days	Wed 1/9/21 Wed 25/8/21	Mon 29/11/21 Mon 15/11/21	
Concrete Turbine upper part foundation Construction of Lube Oil Room	15 days 14 days	Fri 31/12/21 Tue 30/11/21	Fri 14/1/22 Fri 28/1/22	
Concrete RC walls ABFW Works	115 days 60 days	Tue 7/9/21 Thu 4/11/21	Thu 30/12/21 Sun 2/1/22	
Building Services Works Remove temporary falsework and scaffolding for installation of power generator	45 days 13 days	Sat 15/1/22 Mon 7/2/22	Mon 28/2/22 Sat 19/2/22	
Section B2 - (iv) G/F of L12 MSB including the Condenser Pit, Circulating Water Pipe Pit and equipment foundations between GL 12-B to 12-C and 12-1 to 12-6 for the installation of conden	377 days	Fri 4/12/20	Wed 15/12/21	
Area Possession & Clearance	45 days	Fri 4/12/20	Sun 17/1/21	
Subletting / Fabrication / Delivery (for MSB L12 civil) Excavation to foundation level at ELS SP Type A & C	150 days 80 days	Fri 25/12/20 Fri 1/1/21	Sun 23/5/21 Sun 21/3/21	
Excavation of Outlet pipe Construction of CW Outlet Box + lowest tie beam & caps	85 days 40 days	Mon 22/3/21 Mon 22/3/21	Mon 14/6/21 Fri 30/4/21	
Construction of pile caps & tie beams & sump pits up to +2.7mPD Backfill & Construction of CW Inlet Box + tie beams	26 days 71 days	Sat 1/5/21 Thu 27/5/21	Wed 26/5/21 Thu 5/8/21	
Construction of pile caps & tie beams at SunShadeCover Area Backfill and Construction ground beams & trenches	45 days 28 days	Tue 15/6/21 Thu 27/5/21	Thu 29/7/21 Mon 5/7/21	
Construction of indoor underground drainage Backfill & construction on-grade slabs	14 days 60 days	Fri 13/8/21 Sun 1/8/21	Thu 26/8/21 Wed 29/9/21	
Construction Column casting and RC walls & equipment foundations ABFW Works	50 days 15 days	Thu 30/9/21 Fri 19/11/21	Thu 18/11/21 Fri 3/12/21	
Building Services Works Mis. Works and Ready for condenser move in	20 days 25 days	Fri 26/11/21 Wed 17/11/21	Wed 15/12/21 Wed 15/12/21	
wis. works and ready for concenser move in Section C - (i) Roads and external grounds surrounding L12 MSB and L12 HRSG in addition to southern & eastern areas mentioned above in Area F5	the 408 days	Fri 4/12/20	Sat 15/1/22	
Area Possession & Clearance Subletting / Fabrication / Delivery	30 days 210 days	Fri 4/12/20 Fri 25/12/20	Sat 2/1/21 Thu 22/7/21	
Complete substructure & Steel Erection works for MSB Construction all utilities deeper than 2m from future road level	0 days 30 days	Tue 17/8/21 Wed 18/8/21	Tue 17/8/21 Thu 16/9/21	
Construction of cable trenches Backfill and lay temporary paving	30 days 91 days	Fri 17/9/21 Sun 17/10/21	Sat 16/10/21 Sat 15/1/22	
Section C - (ii) Whole of L12 MSB including the pipe and cable rack along south façade of L12 l with all underground utilities at Area F4 including C.W. Inlet and Outlet Culvert except the defe	MSB 483 days	Fri 4/12/20	Thu 31/3/22	
works Area Possession & Clearance	45 days	Fri 4/12/20	Sun 17/1/21	
Subletting / Fabrication / Delivery	120 days	Fri 25/12/20	Fri 23/4/21	
Construction of pile caps & tie beams at Transformer Area Backfill and on-grade slab at transformer Area	180 days 160 days	Sun 31/1/21 Sun 11/4/21	Thu 29/7/21 Thu 7/10/21	
Construction of Fire Walls at Transformer Area Excavation & Construction Blow Down Sum pit (SP Type B)	45 days 140 days	Fri 8/10/21 Wed 14/4/21	Sun 21/11/21 Tue 31/8/21	
Preaparation for S. Steelwork Erection Structural Delivery & Erection (Turhine Hall North fr G.L. 1-3/H->B)	7 days 67 days	Sat 5/6/21 Sat 12/6/21	Fri 11/6/21 Tue 17/8/21	
Structural Delivery & Erection (Equipment Floors) Structural Delivery & Erection (Turbine Hall South + East Elevation)	33 days 47 days	Wed 18/8/21 Mon 20/9/21	Sun 19/9/21 Mon 15/11/21	
Joint Tightening and touch up coating External Scaffolding Erection	99 days 97 days	Sat 3/7/21 Thu 15/7/21	Wed 24/11/21 Mon 22/11/21	
Construction 1/F RC Slab Construction 2/F RC Slab	14 days 7 days	Mon 20/9/21 Mon 27/9/21	Sun 3/10/21 Sun 10/10/21	
Construction 3/F RC Slab Construction 4/F RC Slab	18 days 7 days	Thu 30/9/21 Thu 7/10/21	Sun 17/10/21 Sun 24/10/21	
Construction 5/F RC Slab Construction 6/F RC Slab Construction Upper Roof RC Slab	44 days 14 days	Mon 25/10/21 Wed 1/12/21 Sup 12/12/21	Tue 7/12/21 Tue 14/12/21 Fri 24/12/21	
Construction Upper Root RC Slab Construction Main Roof RC Slab Construction Defer Roof RC Slab (G.L. G-H)	10 days 39 days 14 days	Sun 12/12/21 Tue 12/10/21 Wed 1/12/21	Fri 24/12/21 Fri 19/11/21 Tue 14/12/21	
Construction of Staircase ST-01 & lift shaft & machine room Construction MF RC Slab	130 days	Fri 27/8/21	Mon 3/1/22	
Lift Installation	14 days 60 days	Wed 1/9/21 Tue 4/1/22	Tue 14/9/21 Fri 4/3/22	
Construction of Staircase ST-02 except defer work Construction of RC plinth, kerbs & parapet Walls Erection of Skvlight & Roof Features	68 days 40 days	Mon 11/10/21 Sat 20/11/21	Fri 24/12/21 Wed 29/12/21	
Erection of Skylight & Hoof Features Waterproofing & Flooring at Roof AREW Works	50 days 34 days	Fri 26/11/21 Thu 30/12/21	Fri 14/1/22 Thu 17/2/22	
Building Services Works	100 days 105 days	Fri 8/10/21 Tue 16/11/21 Mon 23/8/21	Sat 15/1/22 Mon 28/2/22 Wed 23/2/22	
Metal Cladding, Windows and Louvres incl. roof feature Removal of external scatfolding Installation of Catwalk at south elevation	185 days 90 days 26 days	Wed 1/12/21 Mon 31/1/22	Mon 28/2/22 Tue 1/3/22	
Cladding, ABWF & BS Works	30 days	Wed 2/3/22	Thu 31/3/22	
Removal of tempoary works & clearance for plant erection contractor Section C - (iii) Link Bridge between L11 and L12 MSB includin their associated A&A at L11 MS	30 days 493 days	Sun 30/1/22 Fri 4/12/20	Mon 28/2/22 Sun 10/4/22	
BD Consent Sublatting / Exprired ton / Delivery / For RS and ARME)	0 days	Fri 4/12/20	Fri 4/12/20	
Subletting / Fabrication / Delivery (For BS and ABWF) Clearing Works and plant set-up Disputation of path perfect for light by light properties.	250 days 30 days	Fri 25/12/20 Fri 3/12/21	Tue 31/8/21 Sat 1/1/22	
Dismantle of north scaffold for link bridge erection A&A works at South of L11 MSB Fraction of link bridge standard and link bridge link bridge standard link bridge standard links bridge link bridge standard links bridge lin	0 days 30 days	Tue 25/1/22 Fri 3/12/21	Tue 25/1/22 Sat 1/1/22	
Erection of link bridge structural steel Casting of bridge deck Metal roofing installation	30 days 11 days	Sun 2/1/22 Tue 1/2/22 Sat 12/2/22	Mon 31/1/22 Fri 11/2/22 Mon 7/2/22	
Metal rooting installation ABWF work BS Works	24 days 30 days	Sat 12/2/22 Sun 20/2/22	Mon 7/3/22 Mon 21/3/22 Sup 10/4/22	
Ready for power cable laying work by others	20 days 0 days 810 days	Tue 22/3/22 Sun 10/4/22 Fri 1/1/21	Sun 10/4/22 Sun 10/4/22 Tue 21/3/23	
Section D - (ii) No. 5 Chimney with L12 Steel Flue Liner Area Possession & Clearance Subletting / Fabrication / Delivery (For Civil and BS for Microwave Antenna and Equipment)	45 days	Fri 1/1/21 Fri 1/1/21 Fri 8/1/21	Sun 14/2/21 Fri 7/5/21	
Excavation & Pile Cap & Backfill	120 days 90 days	Sat 2/1/21	Thu 1/4/21	
Tower Crane erection Construction of Wind Shiled + clearance for internal floors and flue+Ground slab Structural real flooriesting & Pollinguy for floors and etailerance.	30 days 308 days	Tue 11/5/21 Fri 2/4/21	Wed 9/6/21 Mon 4/4/22	
Structural steel fabrication & Delivery for floors and staircase Erection of steel floors Construction of CEE reported Miscourage Antonno Pro-	201 days 79 days	Mon 3/1/22 Tue 19/4/22	Fri 22/7/22 Wed 6/7/22	
Construction of G/F room incl. Microwave Antenna Rm Construction of 1/F RC slab	45 days 8 days	Thu 7/7/22 Sat 13/8/22	Sat 20/8/22 Sat 20/8/22	
Construction of 2/F RC Slab Construction of 3/F RC slab Construction of 4/F RC slab	8 days 8 days	Fri 5/8/22 Thu 28/7/22 Thu 7/7/22	Fri 12/8/22 Thu 4/8/22 Thu 14/7/22	
Construction of 4/F RC slab Construction of floot RC slab Removal of tower Crane	8 days 61 days 7 days	Thu 7/7/22 Tue 21/6/22 Sun 21/8/22	Thu 14/7/22 Sat 20/8/22 Sat 27/8/22	
Removal of tower Crane Steel Flue fabrication and delivery Steel Flue resteel flue installation	7 days 145 days	Sun 21/8/22 Sat 5/3/22 Tue 5/7/22	Sat 27/8/22 Wed 27/7/22 Fri 2/9/22	
Set up for steel flue installation Lift & install steel flue liner + cladding works Lift installation	60 days 161 days 100 days	Tue 5/7/22 Thu 28/7/22 Mon 12/12/22	Fri 2/9/22 Wed 4/1/23 Tue 21/3/23	
Lift installation Installation Louvre & Doors Mis works, Demobilization and ready for gas duct connection	30 days 17 days	Thu 5/1/23 Thu 5/1/23	Fri 3/2/23 Sat 21/1/23	
Section D (i) - ABWF and BS Works at Microwave Antenna Room and Chimney Windshield for		Tue 1/3/22	Fri 10/6/22	
nstallation of microwave and antenna Completion of Microwave Antenna Room Powering A Miles & B. Modele	0 days	Tue 1/3/22	Tue 1/3/22	
Remaining ABWF & BS Works Section E - (i) Administration and Control Building (Transformer Room)	100 days 332 days	Thu 3/3/22 Fri 4/12/20	Fri 10/6/22 Sun 31/10/21	
Area Possession & Clearance + BD consent Subletting / Fabrication / Delivery (For Civil+BS+ABWF)	60 days 100 days	Fri 4/12/20 Tue 2/2/21	Mon 1/2/21 Wed 12/5/21	
Excavation works Main Earth Grid Installation	45 days 45 days	Fri 4/12/20 Sun 3/1/21	Sun 17/1/21 Tue 16/2/21	
Pile cap and Tie Beam Tower Crane Erection and modification works	45 days 49 days	Sun 3/1/21 Wed 10/2/21	Tue 16/2/21 Tue 30/3/21	
Substructure + Bearing walls + On grade slabs Construction of RC up to 1/F incl. staircases	115 days 69 days	Wed 17/2/21 Sat 12/6/21	Fri 11/6/21 Thu 19/8/21	
ABWF at G/F	52 days 452 days	Fri 10/9/21 Fri 4/12/20	Sun 31/10/21 Mon 28/2/22	
Section E (ii) Handover G/F, 1/F, 2/F & Hoisting Well			Sat 20/11/21	
Section E (ii) Handover G/F, 1/F, 2/F & Hoisting Well Clearing Works and plant set-up	21 days	Sun 31/10/21 Sun 3/1/21		
Section E. (ii) Handover G/F, 1/F, 2/F & Hoisting Well Clearing Works and plant set-up Subletting / Fabrication / Delivery (For NSC Lift) Construction of RO up 12/F incl. staircases Construction of RO up to 3/F incl. staircases	21 days 180 days 25 days 20 days	Sun 3/1/21 Sat 14/8/21 Thu 2/9/21	Sat 31/7/21 Mon 13/9/21 Tue 21/9/21	
Section E (ii) Handover GIF, 1/F, 2/F & Holsting Well Clearing Works and plant set-up Subletting / Fabrication / Delivery (For NSC Litt) Construction of RC up to 2/F incl. staircases	21 days 180 days 25 days	Sun 3/1/21 Sat 14/8/21	Sat 31/7/21 Mon 13/9/21	

ER PROGRAMME
B 23 Aug 2021

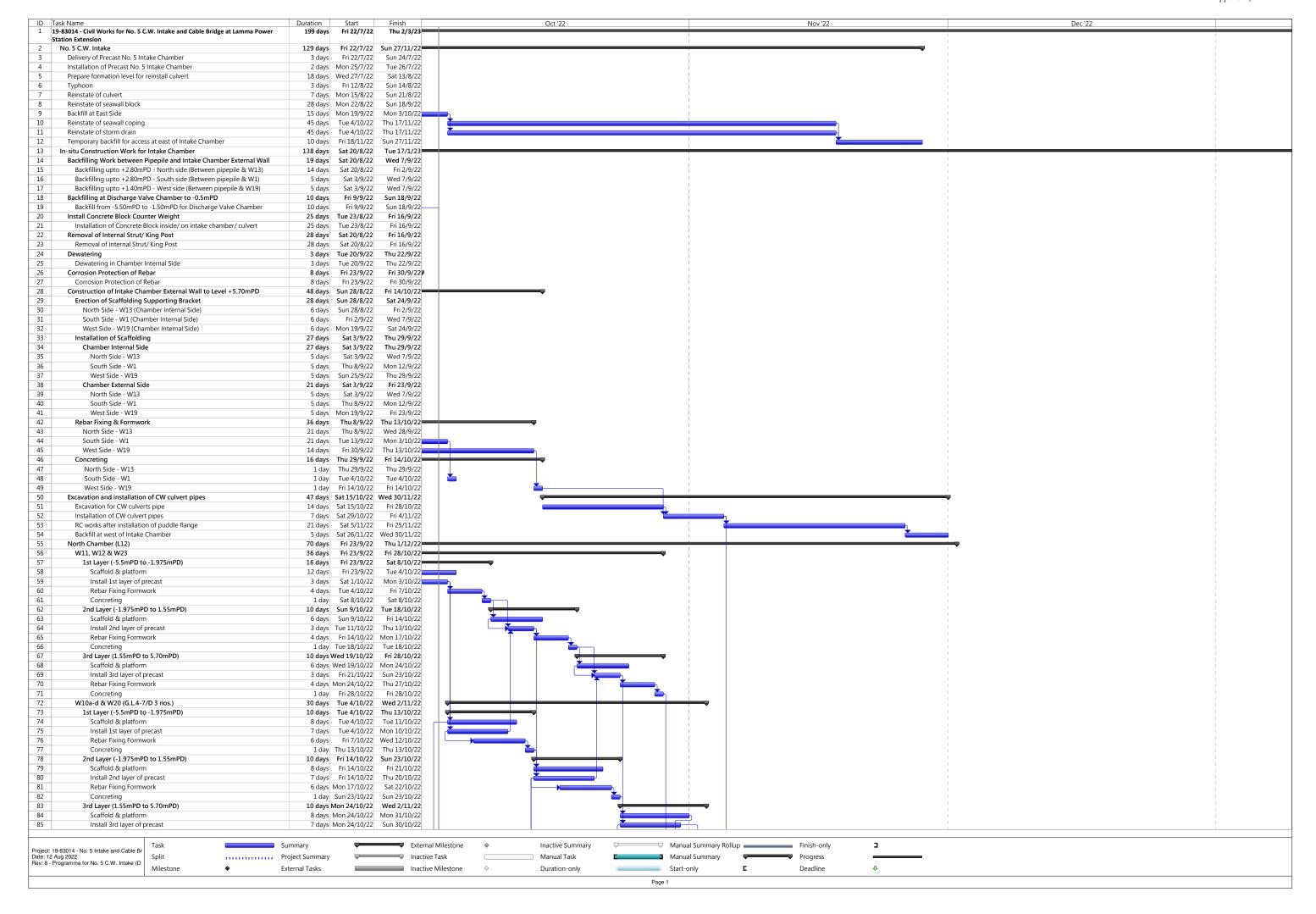
ontract No. 19/83002 Lamma Power Station Extension Civil	Duration Duration	Start Or Ur	II (∟ 1∠ Finish	Master Program
Construction of RC up to R/F incl. staircases Construction of RC up to lift machine room	25 days 21 days	Thu 30/9/21 Mon 25/10/21	Sun 24/10/21 Sun 14/11/21	Nov 2022 Dec 2022
Construction of RC up to UR/F External Wall Finish, Cladding + Windows and Louvres + Features	21 days 138 days	Mon 15/11/21 Thu 30/9/21	Sun 5/12/21 Mon 14/2/22	
ABWF at 1/F ABWF at 2/F	95 days 96 days	Fri 8/10/21 Fri 15/10/21	Mon 10/1/22 Tue 18/1/22	
Building Services Works at G/F, 1/F, 2/F & Hoisting Well Section E (iii) Whole of Administration and Control Building Subletting / Fabrication / Delivery (For BS-ABWF)	147 days 544 days	Tue 5/10/21 Fri 4/12/20	Mon 28/2/22 Tue 31/5/22	
Subletting / Fabrication / Delivery (For BS-ABWF) Construction of New UG Grey Water Tank Submission of WW046 for commencement	127 days 60 days	Sat 23/10/21 Mon 20/3/23 Wed 19/1/22	Sun 20/3/22 Thu 18/5/23 Sat 19/3/22	<u>-</u>
ABWF at 3/F ABWF at 4/F	60 days 120 days 90 days	Mon 25/10/21 Wed 24/11/21	Mon 21/2/22 Mon 21/2/22	-
ABWF at R/F ABWF at UR/F + Lift Machine Room	60 days 45 days	Wed 15/12/21 Wed 5/1/22	Sat 12/2/22 Fri 18/2/22	1
Bridge Erection & Connection Installation of Raised floors	28 days 60 days	Mon 7/2/22 Fri 7/1/22	Mon 28/3/22 Fri 29/4/22	
Removal of external scaffolding Waterproofing & screeding	39 days 60 days	Mon 24/1/22 Mon 6/12/21	Wed 9/3/22 Thu 3/2/22	
Removal of Tower Crane External utiliites and road work	7 days 45 days	Thu 10/3/22 Tue 8/2/22	Wed 16/3/22 Thu 14/4/22	
Building Services Works False ceiling after BS works	160 days 54 days	Tue 7/12/21 Tue 29/3/22	Sun 15/5/22 Sat 21/5/22	
Submission of WW046 for completion Submission of FS inspection	30 days 14 days	Wed 9/3/22 Fri 13/5/22	Thu 7/4/22 Thu 26/5/22	
Submission for OP Inspection Section F (i) - Gas Receiving Station and L12 Gas Receiving Station Equipment Room (GRS) A	rea 548 days	Wed 18/5/22 Tue 1/6/21	Tue 31/5/22 Wed 30/11/22	
Extension at Area F14 Area Possession & Clearance + BD consent	90 days	Tue 1/6/21	Sun 29/8/21	
Subletting / Fabrication / Delivery Installation of pipe pile at north of GRS (VO)	30 days 134 days	Tue 22/6/21 Mon 5/7/21	Wed 21/7/21 Mon 15/11/21	
Construction Equipment room extension Modification of existing drainage	145 days 45 days	Sun 31/10/21 Fri 25/3/22	Thu 24/3/22 Sun 8/5/22	
Excavation & earthing for Skid foundations Construction of Skid foundation	21 days 45 days	Mon 9/5/22 Mon 30/5/22 Thu 14/7/22	Sun 29/5/22 Wed 13/7/22	
Construct underground utilities and drainage Backfill and road works Relocate / install new fencing for completion	45 days 60 days	Sun 28/8/22 Thu 27/10/22	Sat 27/8/22 Wed 26/10/22 Wed 16/11/22	Backfill and road works
Mis. Work and ready for OP inspection Section F (ii) - Pipe and Cable rack and external work at Area F9A and F9B	21 days 14 days 515 days	Thu 17/11/22 Sat 2/1/21	Wed 30/11/22 Wed 30/11/22 Tue 31/5/22	Mis. Work and ready for OP inspection
BD consent + Site Possession at Area F9A & F9B Excavation & Plate load test	90 days	Sat 2/1/21 Sat 2/1/21 Mon 1/11/21	Thu 1/4/21 Tue 30/11/21	
Excavation & Prate load test Construction new footing for pipe rack Underground utilities and road works for completion	30 days 30 days 11 days	Wed 1/12/21 Thu 31/3/22	Thu 30/12/21 Tue 31/5/22	
Structural Steel fabrication & Delivery Ercetion of new pipe rack	90 days 70 days	Sat 2/10/21 Fri 31/12/21	Thu 30/12/21 Thu 10/3/22	
Mis. Work and ready for OP inspection Section F (iii) - No. 5 CW Equipment Room, pipe and cable rack, external works at Area F10	21 days 457 days	Wed 11/5/22 Tue 1/6/21	Tue 31/5/22 Wed 31/8/22	
Area Possession & Clearance + BD consent Subletting / Fabrication / Delivery For ABWF + BS	90 days 150 days	Tue 1/6/21 Wed 2/6/21	Sun 29/8/21 Fri 29/10/21	
Installation of Sheet Pile (VO) Consent for ELS Works	85 days 28 days	Tue 1/6/21 Wed 25/8/21	Tue 24/8/21 Tue 21/9/21	
Excavation & Plate load test Construction new footing for equipment room	30 days 68 days	Wed 22/9/21 Thu 23/12/21	Thu 21/10/21 Mon 28/2/22	
Superstructure for equipment room ABWF Works	60 days 45 days	Tue 1/3/22 Sat 30/4/22	Fri 29/4/22 Mon 13/6/22	
BS Works Construction RC Wall & plinths & drainage at Chlorinator area	30 days 45 days	Wed 1/6/22 Wed 30/3/22	Thu 30/6/22 Fri 13/5/22	
External wall finish & remove scaffolding Excavation & Plate load test for pipe rack extension (For F45-47 & F49)	30 days 30 days	Sat 14/5/22 Sat 16/10/21	Sun 12/6/22 Sun 14/11/21	
Construction new footing for pipe rack (For F45-47 & F49) Underground utilities and road works for completion	45 days 60 days	Mon 15/11/21 Thu 30/12/21	Wed 29/12/21 Sun 27/2/22	
Structural Steel fabrication & Delivery Backfilling and prepare for steel erection	90 days 12 days	Sun 12/12/21 Mon 28/2/22	Fri 11/3/22 Fri 11/3/22	
Excavation & Plate Load test for pipe rack extenstion (For F48 F56) Construction of new footing for pipe rak (For F48 & F56)	14 days 14 days	Wed 30/3/22 Wed 13/4/22	Tue 12/4/22 Tue 26/4/22	
Erection of new pipe rack (For F48 & F56) Erection of new pipe rack (For F45-47 & F49)	65 days 70 days	Tue 3/5/22 Sat 12/3/22	Wed 6/7/22 Fri 20/5/22	
Mis. Work and ready for OP inspection Section G (i) - External Work surrounding Area F11	56 days 145 days	Thu 7/7/22 Sat 4/6/22	Wed 31/8/22 Wed 26/10/22	e 04 ⊕ -26 Oct '22
Area Possession & Clearance after handover from No. 5 Intake Contractor Subletting / Fabrication / Delivery	30 days 30 days	Sat 4/6/22 Sat 4/6/22	Sun 3/7/22 Sun 3/7/22	
Submission WW0046 for commencement Construct Underground utilities and drainage Install new FS Hydrant	30 days 30 days 20 days	Sat 4/6/22 Mon 20/6/22 Mon 20/6/22	Sun 3/7/22 Tue 19/7/22 Sat 9/7/22	
Submission WW0046 for completeion Construction Road extension	30 days 58 days	Sat 30/7/22 Sat 30/7/22	Sun 28/8/22 Sun 25/9/22	utlon Road extension
Construction road exension Construction road paving and install fencing Ready for OP inspection	30 days 14 days	Mon 26/9/22 Thu 13/10/22	Tue 25/10/22 Wed 26/10/22	Construction road paving and install fencing Ready for OP inspection
Section G (ii) - External Works at Area F12 & F13 Area Possession & Clearance after handover from other	666 days 45 days	Fri 4/12/20 Fri 4/12/20	Fri 30/9/22 Sun 17/1/21	7:30 Sep '22
Subletting / Fabrication / Delivery Excavation	180 days 21 days	Thu 4/3/21 Sat 23/10/21	Mon 30/8/21 Fri 12/11/21	
Submission WWO046 for commencement Construct Underground utilities and drainage	30 days 90 days	Sat 13/11/21 Mon 13/12/21	Sun 12/12/21 Sat 12/3/22	
Install new FS Hydrant Submission WWO046 for completion	30 days 30 days	Sun 13/3/22 Tue 12/4/22	Mon 11/4/22 Wed 11/5/22	
Construction Road extension Complete with Mis. Works for completion	127 days 15 days	Thu 12/5/22 Fri 16/9/22	Thu 15/9/22 Fri 30/9/22	s) in Complete with Mis. Works for completion
Section G (iii) - FS Modification works along South Seafront Road at Area F15 Area Possession & Clearance after handover from other	183 days 45 days	Fri 1/4/22 Fri 1/4/22	Fri 30/9/22 Sun 15/5/22	0 Sep '22
Subletting / Fabrication / Delivery Temporary Traffice Arrangement approval	21 days 14 days	Fri 1/4/22 Fri 1/4/22	Thu 21/4/22 Thu 14/4/22	
Utilities scanning and expose existing FS Determine new FS alignment	14 days 21 days	Fri 15/4/22 Fri 29/4/22	Thu 28/4/22 Thu 19/5/22	
Submission to FSD Modification of FS	14 days 60 days	Fri 20/5/22 Fri 3/6/22	Thu 2/6/22 Mon 1/8/22	
Backfill and reinstatment + report to FSD Section G (iv) - 275kV cable trenches and External Works at Area F16	60 days 518 days	Tue 2/8/22 Sat 1/5/21	Fri 30/9/22 Fri 30/9/22	- Sackfill and reinstatment + report to FSD 2 00 Sep '22
Area Possession & Clearance Subletting / Fabrication / Delivery	60 days 210 days	Sat 1/5/21 Wed 17/11/21	Tue 29/6/21 Tue 14/6/22	
Temporary Traffice Arrangement approval Removal of aboveground services	60 days 60 days	Sat 1/5/21 Wed 30/6/21	Tue 29/6/21 Sat 28/8/21	
Utilities scanning and expose exising UU Arrange of diversion existing UG utilities	30 days 90 days	Sun 29/8/21 Tue 28/9/21	Mon 27/9/21 Sun 26/12/21	
Construct new cable trenches Realigment / install new UG utilities	173 days 60 days	Mon 27/12/21 Sat 18/6/22	Fri 17/6/22 Tue 16/8/22	
Backfill and reinstate & ready for cable laying by others Section G (y) - Shunt Reactor Compound and External Works at Area F17	45 days 666 days	Wed 17/8/22 Fri 4/12/20	Fri 30/9/22 Fri 30/9/22	- flockfill and reinstate & ready for cable laying by others 2 00 Sep '22
Temporary Traffice Arrangement approval Subletting / Fabrication / Delivery	45 days 100 days	Fri 4/12/20 Fri 25/12/20	Sun 17/1/21 Sat 3/4/21	
BD approval & consent for pipe pile installation Area Possession & Clearance	90 days 14 days	Fri 4/12/20 Thu 4/3/21	Wed 3/3/21 Wed 17/3/21	
Removal of aboveground services Utilities scanning and expose existing UU Arrange of the pain and expose existing UI	21 days 15 days	Thu 18/3/21 Thu 8/4/21	Wed 7/4/21 Thu 22/4/21	
Arrange of diversion existing UG utilities Install pipe piles RA14 for pipelile and PD concept for ELS	45 days 61 days	Fri 23/4/21 Sun 23/5/21 Fri 23/7/21	Sun 6/6/21 Thu 22/7/21 Thu 19/9/21	
BA14 for pipepile and BD consent for ELS Excavation & install earthing Construct Pile Caps and Tie Beams	28 days 35 days 45 days	Fri 23/7/21 Fri 20/8/21 Fri 24/9/21	Thu 19/8/21 Thu 23/9/21 Sun 7/11/21	
Construct Pile Caps and Tie Beams Backfill & Erect scaffold Construction of SRC Walls	21 days	Fri 24/9/21 Mon 8/11/21 Mon 29/11/21	Sun 7/11/21 Sun 28/11/21 Fri 11/2/22	
Construction of SRC Walls Construct new cable trenches	75 days 24 days 60 days	Mon 29/11/21 Sat 12/2/22 Tue 8/3/22	Fri 11/2/22 Mon 7/3/22 Fri 6/5/22	
Construct new cable trenches Install new UG Utilities, Backfill and reinstate & ready for cable laying by Others for DAX1 Realigment / install new UG utilities (for DAX2, APX1 & APX3)	55 days 117 days	Thu 7/4/22 Sat 7/5/22	Tue 31/5/22 Wed 31/8/22	X & APX3)
Backfill and reinstate & ready for cable laying by others (for DAX2, APX1, & APX3) Section G (vi) - 275kV cable trenches and External Works at Area F18	30 days 397 days	Thu 1/9/22 Sat 1/5/21	Fri 30/9/22 Wed 1/6/22	lackfill and reinstate & ready for cable laying by others (for DAX2, APX1, & APX3)
Section G (V) - 275KV caple trenches and External Works at Area F18 Temporary Traffice Arrangement approval Subletting / Fabrication / Delivery	45 days 60 days	Sat 1/5/21 Sat 1/5/21 Tue 15/6/21	Mon 14/6/21 Fri 13/8/21	-
Area Possession & Clearance Removal of aboveground services	15 days 30 days	Sat 1/5/21 Sun 16/5/21	Sat 15/5/21 Mon 14/6/21	
Heinivar or according the arrives Utilities examing and expose exising UU Arrange of diversion existing UG utilities	45 days 60 days	Tue 15/6/21 Fri 30/7/21	Thu 29/7/21 Mon 27/9/21	
Construct new cable trenches Realigment / install new UG utilities	172 days 45 days	Tue 28/9/21 Sat 19/3/22	Fri 18/3/22 Mon 2/5/22	
Backfill and reinstate & ready for cable laying by others Section G (vii) - Flood wall at No. 5 CW Intake Area along HUA at Area F20A	30 days 521 days	Tue 3/5/22 Fri 4/12/20	Wed 1/6/22 Sun 8/5/22	
Area Possession & Clearance Subletting / Fabrication / Delivery	30 days 60 days	Fri 4/12/20 Fri 4/12/20 Fri 25/12/20	Sat 2/1/21 Mon 22/2/21	-
Subletting / Fabrication / Delivery Temporary Traffice Arrangement approval ELS BD approval & consent	300 days 90 days	Fri 4/12/20 Fri 4/12/20 Fri 18/12/20	Wed 29/9/21 Wed 17/3/21	
ELS BU approval & consent Demolition of existing carriageway Removal of aboveground services	90 days 30 days 21 days	Thu 11/11/21 Thu 30/9/21	Wed 17/3/21 Fri 10/12/21 Wed 20/10/21	4
Heimoval of aboveground services Utilities scanning and expose exising UU Arrange of diversion existing UG utilities	21 days 21 days 30 days	Thu 21/10/21 Sat 11/12/21	Wed 10/11/21 Sun 9/1/22	
Arrange of diversion existing of utilities Excavation and construction of new Flood wall Realigment / install new UG utilities	65 days 30 days	Mon 10/1/22 Wed 16/3/22	Tue 15/3/22 Thu 14/4/22	
Realignent / Install new Oc utilities Backfill and construct new carriageway Mis. Work for completion	18 days 6 days	Fri 15/4/22 Tue 3/5/22	Mon 2/5/22 Sun 8/5/22	
Section G (viii) - Flood wall at No. 5 CW Intake Area along HUA at Area F20B Area Possession & Clearance	365 days 45 days	Fri 1/10/21 Fri 1/10/21	Fri 30/9/22 Sun 14/11/21	7 30 Sep '22
Subletting / Fabrication / Delivery	90 days	Fri 22/10/21	Wed 19/1/22	4
Temporary Traffice Arrangement approval	14 days	Fri 1/10/21	Thu 14/10/21	

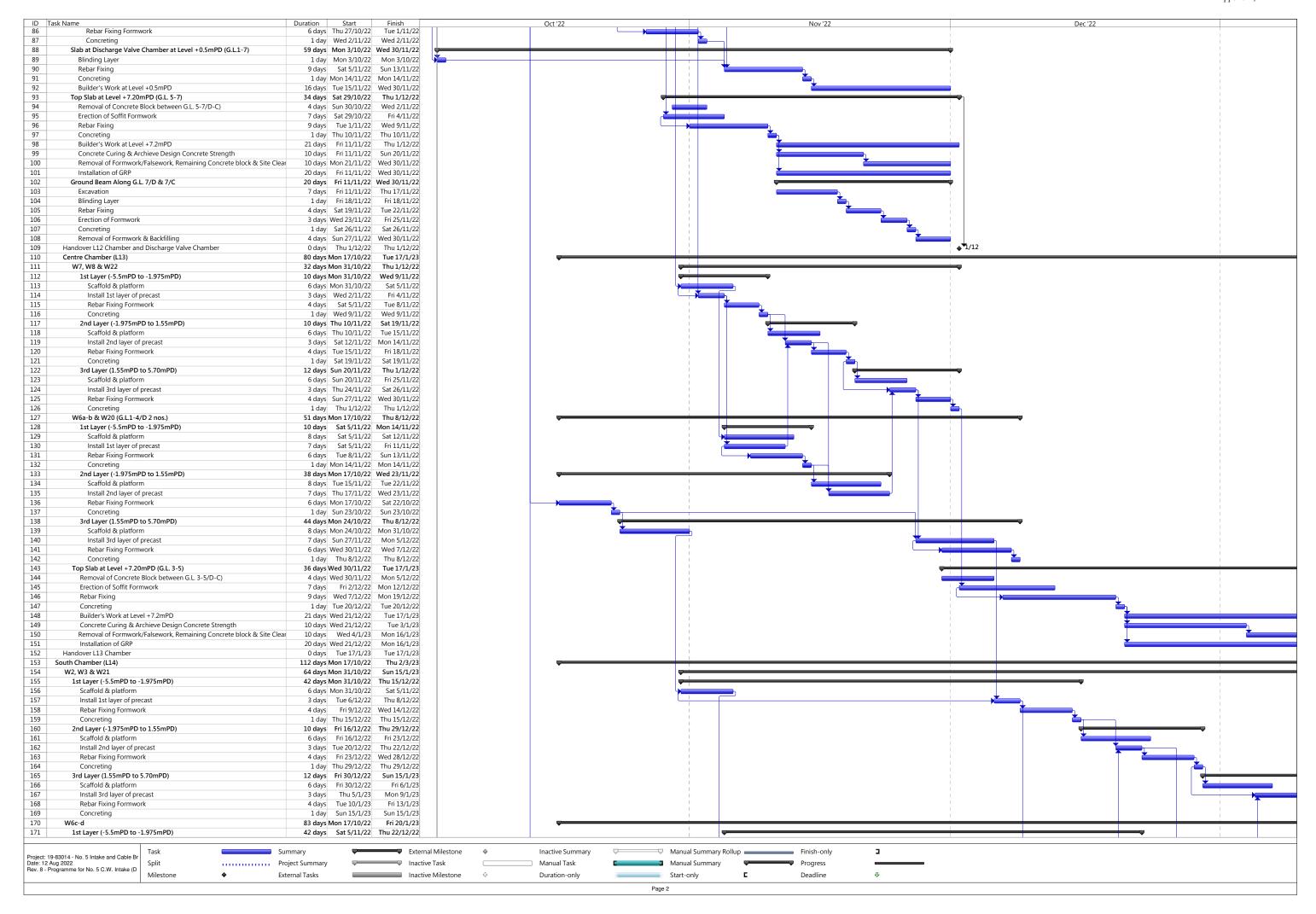
PaulY

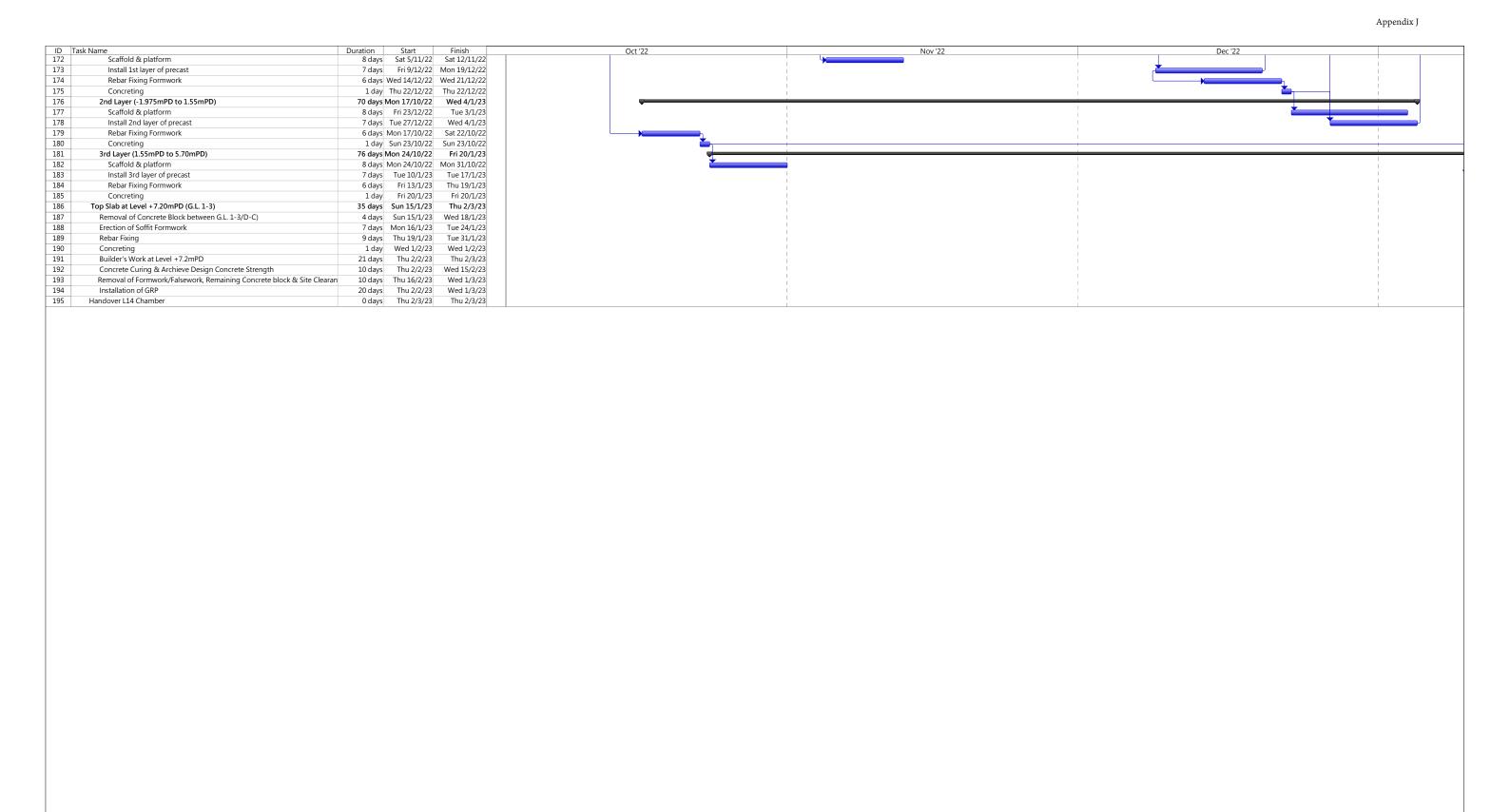
Split Milestone

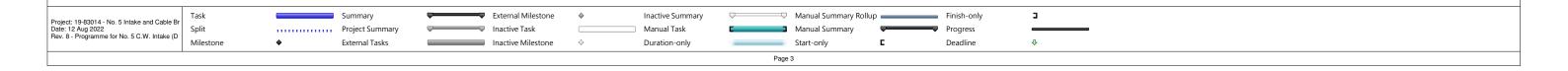
sk Name	nd Building V	Start	Finish	Master Program
Demolition of existing carriageway Removal of aboveground services	60 days 21 days	Fri 1/10/21 Tue 30/11/21	Mon 29/11/21 Mon 20/12/21	
Utilities scanning and expose exising UU Arrange of diversion existing UG utilities	21 days 30 days	Tue 21/12/21 Tue 11/1/22	Mon 10/1/22 Wed 9/2/22	
Install Sheetpiles BA14 for sheetpile and BD consent for ELS	55 days 28 days	Thu 10/2/22 Wed 6/4/22	Tue 5/4/22 Tue 3/5/22	
Excavation and construction of new Flood wall Realigment / install new UG utilities	90 days 30 days	Wed 4/5/22 Tue 2/8/22	Mon 1/8/22 Wed 31/8/22	
Backfill and construct new carriageway Mis. Work for completion	21 days 9 days	Thu 1/9/22 Thu 22/9/22	Wed 21/9/22 Fri 30/9/22	ristruct new carriageway (ilis. Work for completion
Section G (ix) - Bund wall modification works at South Seafront Road at Area F21 Area Possession & Clearance	316 days 45 days	Fri 4/12/20 Fri 4/12/20	Fri 15/10/21 Sun 17/1/21	
Subletting / Fabrication / Delivery Temporary Traffice Arrangement approval	90 days 165 days	Fri 25/12/20 Fri 4/12/20	Wed 24/3/21 Mon 17/5/21	
ELS BD approval & consent Demolition of existing carriageway	0 days 14 days	Thu 17/12/20 Tue 18/5/21	Thu 17/12/20 Mon 31/5/21	
Removal of aboveground services	14 days 14 days 21 days	Tue 1/6/21 Tue 1/6/21	Mon 14/6/21 Mon 5/7/21	
Utilities scanning and expose exising UU Arrange of diversion existing UG utilities (include FS pipe under 17/8002)	40 days	Tue 6/7/21	Sat 14/8/21	
Excavation and expose existing bund wall & demolish Construction new bund wall for road junction	18 days 21 days	Wed 28/7/21 Sat 4/9/21	Sat 14/8/21 Fri 24/9/21	
Realigment / install new UG utilities (include FS pipe under 17/8002) Backfill and construct new carriageway	60 days 16 days	Sun 1/8/21 Thu 30/9/21	Wed 29/9/21 Fri 15/10/21	
Mis. Work for completion Section G (x) - DAX Cable Diversion Works (from Part I to Part IV)	5 days 758 days	Mon 11/10/21 Fri 4/12/20	Fri 15/10/21 Sat 31/12/22	
Temporary Traffice Arrangement approval Subletting / Fabrication / Delivery	14 days 90 days	Fri 4/12/20 Fri 25/12/20	Thu 17/12/20 Wed 24/3/21	
Area Possession & Clearance Identification of existing cable trench	45 days 7 days	Fri 4/12/20 Mon 18/1/21	Sun 17/1/21 Sun 24/1/21	
Part 1 Re-excavation works incl.construction of joint bay (at Water Reservoir Road) Part 1 Re-excavation works incl construction of joint bay (other than Reservoir road base on revised routing)	246 days 310 days	Mon 25/1/21 Mon 25/1/21	Mon 27/9/21 Tue 30/11/21	
Part 2 Re-excavation works incl. joint bay	120 days	Mon 1/11/21	Mon 28/2/22	
Part 3 Re-excavation works incl. joint bay Part 4 Re-excavation works incl. joint bay & new oil tank pits	242 days 92 days	Mon 1/11/21 Sat 1/10/22	Thu 30/6/22 Sat 31/12/22	
Backfill & Reinstatement Part 1 Backfill & Reinstatement Part 2	61 days 61 days	Mon 1/11/21 Sun 1/5/22	Fri 31/12/21 Thu 30/6/22	
Backfill & Reinstatement Part 3	61 days	Thu 1/9/22	Mon 31/10/22	Backfill & Reinstatement Part 3
Section H - All remaining works shall be completed for reporting completion to BD and ready for O inspection (PS1.4.4)		Wed 17/11/21	Sun 31/12/23	
Deferred works (MSB & HRSG) Listed in PS 1.4.4 Construction of L12 MSB roof between GL12-G to 12-H and 12-2 to 12-6 after the overhead crane installation by	272 days by the 38 days	Wed 17/11/21 Wed 17/11/21	Mon 15/8/22 Fri 7/1/22	
Employer's Specialist Contractors Construction of walls off.12 MSB below 1/F along GL 12-6 from GL12-B to 12-C and the associated staircases including the enclosure walls between G/F and 1/F. The Contractor shall allow access for the Employer's Spec	s 92 days	Mon 16/5/22	Mon 15/8/22	Cand the associated staircases including the anciosule walls between GF and 1.F. The Contractor shall allow access for the Employer's Specialist
Contractors to use the hoisting we Provision in associated with hoisting well Construction of internal partition wall at 1/F ofL12 MSB along GL 12-C from GL 12-2 to 12-3 AND North Façad	21 days	Mon 6/6/22 Sat 16/4/22	Sun 26/6/22 Sun 15/5/22	
1/F of L12 MSB along GL 12-1 from GL 12-B to 12-C				n and installation of removable shelter at Transformer Area
Construction of metal fence and the associated Fire Services (F.S.) installations and installation of removable shelter at Transformer Area	92 days	Mon 16/5/22	Mon 15/8/22	MGS
Deferred works (DAX1 and DAX2) Listed in PS 1.4.4 Backfilling of whole DAXI compartment inside existing joint bay "STJI2" and the new oil tank pit A located aside	334 days e 59 days	Wed 1/2/23 Wed 1/2/23	Sun 31/12/23 Fri 31/3/23	"
existing joint bay "STJI2". Re-excavation of whole DAX2 compartment inside existing joint bay "STJI2".	61 days	Tue 1/8/23	Sat 30/9/23	
Backfilling of whole DAX2 compartment inside existing joint bay "STJI2" and the new oil tank pit B located asid existing joint bay "STJI2".	de 61 days	Wed 1/11/23	Sun 31/12/23	<u> </u>
Deferred works (External Work) Listed in PS 1.4.4 Final reinstatement of access roads and pavement surrounding and within L12 MSB and L12 HRSG area	121 days 62 days	Thu 1/12/22 Thu 1/12/22	Fri 31/3/23 Tue 31/1/23	1 Dec '22
Installation of trench cover and road reinstatement of gas pipe and cable trenches within Area F5, F14, F16, F	1	Sun 1/1/23	Fri 31/3/23	-
and F18. Backfilling and road-reinstatement of 275kV cable trenches	90 days	Sun 1/1/23	Fri 31/3/23	
All Remaining work ready for OP inspection FATUTORY SUBMISSION, INSPECTION & APPROVAL	0 days 560 days	Tue 28/2/23 Tue 16/11/21	Tue 28/2/23 Mon 29/5/23	
WSD Statutory Submission, Inspection and Approval WWO Part I to III Submission / Approval	256 days	Tue 16/11/21	Fri 29/7/22	
WSD : Submit to WSD Form WWO 046 Part I to II - FOR ACB Building (for Ext Works at later stage) WSD: Vetting Form WWO 046 Part I and II Submission	0 days 90 days	Tue 16/11/21 Wed 17/11/21	Tue 16/11/21 Mon 14/2/22	
WSD: Issued of Form WWO 046 Part III by WSD - FOR ACB Building WSD: Prepare for 1st Amendment for Plumbing Plan	0 days 60 days	Tue 15/2/22 Tue 15/2/22	Tue 15/2/22 Fri 15/4/22	
WSD: Submit to WSD 1st Amendment for Plumbing Plan WSD: Vetting of Plumbing Plan by WSD	0 days 60 days	Fri 15/4/22 Sat 16/4/22	Fri 15/4/22 Tue 14/6/22	
WSD: 1st Approval for Plumbing Plan by WSD WSD: Prepare and Submit for Final Amendment for Plumbing Plan	0 days 45 days	Tue 14/6/22 Wed 15/6/22	Tue 14/6/22 Fri 29/7/22	
WSD: Vetting and Final Approval for Plumbing Plan by WSD WSD Statutory Submission, Inspection and Approval WWO Part IV to V Fire Services Water Submission /	0 days 33 days	Fri 29/7/22 Fri 29/7/22	Fri 29/7/22 Wed 31/8/22	
Approval WSD: Form WWO 046 Part IV Submission (FS)	0 days	Fri 29/7/22	Fri 29/7/22	
WSD: WSD Recieved Form WWO046 Part IV and arrange for inspection (FS) WSD: WSD Inspection (FS)	7 days 7 days	Sat 30/7/22 Sat 6/8/22	Fri 5/8/22 Fri 12/8/22	
WSD: WWO 046 Part V Endorsement by WSD (FS) WSD: WSD Processing Water Supply Connection Certificate (FS)	12 days 7 days	Sat 13/8/22 Thu 25/8/22	Wed 24/8/22 Wed 31/8/22	Chrifficate (PS)
WSD: Issue by WSD Water Supply Connection Certificate (FS) WSD Statutory Submission, Inspection and Approval WWO Part IV to V Potable /Flush Water Submission /	0 days? 60 days	Wed 31/8/22 Fri 19/8/22	Wed 31/8/22 Tue 18/10/22	r fficate (FS)
Approval	0 days	Fri 19/8/22	Fri 19/8/22	
WSD: Form WWO 046 Part IV Submission (Fresh/Flush) WSD: WSD Acknowledge Form WWO 046 WSD: WSD Inspection with Testing to lead (Fresh/Fluhs)	6 days	Sat 20/8/22 Fri 26/8/22	Thu 25/8/22 Tue 6/9/22	ord (Freeh/Fluhe)
WSD: Cleansing/Disinfecting Water Tanks / Piping System (Fresh/Flush) WSD: Collection of Sample for Testing at Accredited Lab (Fresh/Flush)	12 days 6 days	Wed 7/9/22 Tue 13/9/22	Mon 12/9/22 Sat 24/9/22	Water Tanks / Piping System (Fresh Flush) Wetion of Sample for Testing at Accredited Lab (Fresh Flush)
WSD:Accredited Lab Testing Report of Sample to WSD	12 days 12 days	Sun 25/9/22 Fri 7/10/22	Thu 6/10/22	WSD-Accredited Lab Testing Report of Sample to WSD WSD: Vetting of Test Report by WSD
WSD: Vetting of Test Report by WSD WSD: Issue of WWO 046 Part V (Fresh/Flush)	6 days 0 days	Wed 12/10/22 Thu 13/10/22	Wed 12/10/22 Wed 12/10/22	WSD: Issue of WWO 046 Part V Fresh Flush) WSD: WSD Processing WW01005 Water Certification (Fresh Flush)
WSD: WSD Processing WW01005 Water Certification (Fresh/Flush) WSD: Issue by WSD WWO 1005 Water Certification (Fresh/Flush)	6 days 0 days	Tue 18/10/22	Tue 18/10/22 Tue 18/10/22	WSD: Issue by WSD WWO 1005 Water Certification (Fresh/Flush)
EMSD LIFT Statutory Submission, Inspection and Approval EMSD: Submission of Lift Form LE5 to EMSD	45 days 12 days	Sat 26/3/22 Sat 26/3/22	Mon 9/5/22 Wed 6/4/22	
EMSD: EMSD Makes arrangement for Lift Installation EMSD: EMSD Inspection to Lift Installation	5 days 14 days	Thu 7/4/22 Tue 12/4/22	Mon 11/4/22 Mon 25/4/22	
EMSD: Processing Lift Certificate (Form LE6) EMSD: Lift Issuance of Form 6 (Lift Certificate)	14 days 0 days	Tue 26/4/22 Mon 9/5/22	Mon 9/5/22 Mon 9/5/22	_
#KE Transformer Final Inspection TX Room: Invite HKE For Transformer Room Inspection	120 days 7 days	Thu 30/6/22 Thu 30/6/22	Thu 27/10/22 Wed 6/7/22	27 Oct 22
TX Room: Give Access to Transformer Room for HKE Contractor TX Room: Move-IN HKE Transformer Equipments	0 days 5 days	Wed 6/7/22 Thu 7/7/22	Wed 6/7/22 Mon 11/7/22	
TX Room: Install HKE Transformer, MEP Works & Testing TX Room: HKE Power Energization / Inspection	90 days 6 days	Tue 12/7/22 Mon 10/10/22	Sun 9/10/22 Sat 15/10/22	TX Room: Install HKE Transformer, MEP Works & Testing TX Room: HKE Power Energization / Inspection
TX Room: Metering Installation TX Room: HKE Power-ON Date	12 days 0 days	Sun 16/10/22 Thu 27/10/22	Thu 27/10/22 Thu 27/10/22	TX Room: Metering Installation TX Room: HKE Power-ON Date
DSD: CCTV Survey Report on Completed Drainage	65 days 30 days	Sun 2/10/22 Sun 2/10/22	Mon 5/12/22 Mon 31/10/22	# 5 Dec '22 #DSD: CCTV Survey Report on Completed Drainage
DSD: Submitted CCTV Report & Form HPB1 of Completed Drainage to DSD For Technical Audit DSD: Completed Drainage System including TMC Inspection/Technical Audit by DSD	7 days	Tue 1/11/22 Tue 8/11/22	Mon 7/11/22 Mon 21/11/22	OSD: Submitted CCTV Report & Form HPB1 of Completed Drainage to DSD For To ———————————————————————————————————
DSD: Completed Drainage System including 1mtc inspection/1 ecrinical Audit by DSD DSD: Preparation of Drainage Connection Completion Memo by DSD DSD: Issue of Drainage Connection Completion Memo by DSD	14 days 14 days 0 days	Tue 22/11/22 Mon 5/12/22	Mon 5/12/22 Mon 5/12/22	OSD: Preparation of Drainage Connect
DSD: issue of Drainage Connection Completion Memo by DSD EPD Submission, Inspection and Approval EPD: License Application to EPD under APCO (Cap 311) for Generator Sets	60 days	Thu 30/6/22 Thu 30/6/22	Mon 5/12/22 Mon 29/8/22 Thu 30/6/22	The state of training contracts
EPD: Vetting of Application by EPD under APCO (Cap 311) for Generator Sets	0 days 60 days	Fri 1/7/22	Mon 29/8/22	(11) for Generator Sets
EPD: Approval from EPD under APCO (Cap 311) for Generator Sets Installation SD VAC Statutory Submission, Inspection and Approval	0 days 150 days	Mon 29/8/22 Wed 20/7/22	Mon 29/8/22 Fri 16/12/22	Interator Sets Installation
Preparation of FSD VAC Drawings and Submission to HEC HEC: Review and Approval	60 days 30 days	Wed 20/7/22 Sun 18/9/22	Sat 17/9/22 Mon 17/10/22	C Drawings and Submission to HEC
Preparation of VAC Drawings and Submission to FSD FSD: Review and Approval	30 days 30 days	Tue 18/10/22 Thu 17/11/22	Wed 16/11/22 Fri 16/12/22	Preparation of VAC Drawings and Submission to FSD FSD: Review a
FSD Statutory Submission, Inspection and Approval Testing and Commissioning (Individual System - FSI Related)	91 days 45 days	Tue 28/2/23 Tue 28/2/23	Mon 29/5/23 Thu 13/4/23	
FSD: All Sections FS Ingration Test by NSC_BS FSD: Completion of FS Integration Test by NSC_BS for FS314/501	15 days 0 days	Fri 14/4/23 Fri 28/4/23	Fri 28/4/23 Fri 28/4/23	
FSD: Submit Form 213/314 & Form 501 Request for Inspection FSD: FSD Makes Arrangement for Inspection	0 days 7 days	Fri 28/4/23 Sat 29/4/23	Fri 28/4/23 Fri 5/5/23	
FSD: FSD inspection FSD: Completion of FS Inspection	12 days 0 days	Sat 6/5/23 Wed 17/5/23	Wed 17/5/23 Wed 17/5/23	
FSD: FSD Processing FS Certicate Form 172 FSD: Issue of Fire Services FS Certificate Form 172	12 days 0 days	Thu 18/5/23 Mon 29/5/23	Mon 29/5/23 Mon 29/5/23	
RACTICAL COMPLETION	216 days	Tue 30/5/23	Sun 31/12/23	
BD: Application Form BA13 for OP Application	97 days 21 days	Tue 30/5/23 Tue 30/5/23	Sun 3/9/23 Mon 19/6/23	
BD: BD Inspection Date BD: Reinspection date with defects and rectification works	15 days 60 days	Tue 20/6/23 Wed 5/7/23	Tue 4/7/23 Sat 2/9/23	
BD: Obtain Occupation Permit (OP) from BD As-Built Drawings & Handover Documentation	1 day 120 days	Sun 3/9/23 Wed 14/6/23	Sun 3/9/23 Wed 11/10/23	<u>-</u>
Prepare and Submit As-Built Drawings & Handover Documentation	45 days 45 days	Wed 14/6/23 Sat 29/7/23	Fri 28/7/23 Mon 11/9/23	
Review and Approval	30 days 0 days	Tue 12/9/23 Wed 11/10/23	Wed 11/10/23 Wed 11/10/23	
As-Built Drawings & Handover Documentation - Revision by MC		Mon 4/9/23	Sun 31/12/23	
As-Built Drawings & Handover Documentation - Revision by MC Revised As-Built Drawings & Handover Documentation - Final Submission Completion of the Whole Contract Works	119 days 30 days	Mon 4/9/23	Tue 3/10/23	
As-Bull Drawings & Handover Documentation - Revision by MC Revised As-Bull Drawings & Handover Documentation - Final Submission Completion of the Whole Contract Works 1st Client Inspection for Review and Comments Defects and Reclification works	30 days 60 days	Mon 4/9/23 Wed 4/10/23	Sat 2/12/23	
As-Bull Drawings & Handover Documentation - Revision by MC Revised As-Bull Drawings & Handover Documentation - Final Submission Completion of the Whole Contract Works 1st Clant Inspection for Review and Comments Deflects and Reclification works 2nd Client Inspection Minor Defects Reclification Works 2nd Client Inspection	30 days 60 days 14 days 15 days	Mon 4/9/23 Wed 4/10/23 Sun 3/12/23 Sun 17/12/23	Sat 2/12/23 Sat 16/12/23 Sun 31/12/23	
As-Bulli Drawings & Handover Documentation - Revision by MC Revised As-Bull Drawings & Handover Documentation - Final Submission Description of the Whole Contract Works 1st Client Inspection for Review and Comments Defects and Rectification works 2nd Client Inspection	30 days 60 days 14 days	Mon 4/9/23 Wed 4/10/23 Sun 3/12/23	Sat 2/12/23 Sat 16/12/23	

PaulY









Construction Schedule of Unit-12 Rev.5a タスク名 開始日 終了日 先行タスク 2021年 第2四半期 2021年 第3四半期 2021年 第4四半期 2022年 第1四半期 2022年 第1四半期 2022年 第2四半期 2022年 第3四半期 2022年 第3四半期 2023年 第1四半期 2023年 第2四半期 2023年 第2四半期 2023年 第2四半期 2023年 第2四半期 2023年 第3四半期 2023年 第1四半期 2023年 第2回半期 2023年 第3四半期 2023年 第3四半期 2023年 第1四半期 2023年 第1四半期 2023年 第1四半期 2023年 第3四半期 2023年 第3四半期 2023年 第1四半期 2023年 第1四半期 2023年 第3四半期 2023年 第3回半期 2023年 2021年 第2四半期 Ø Key Date Key Date 527日 21/10/01(金) 23/06/07(水) 2 H/O HRSG Foundation 1日 21/10/01(金) 21/10/01(金) H/O HRSG Foundation → 10/01 H/O OHC Installation 18 21/11/01(月) 21/11/01(月) 3 H/O OHC Installation → 11/01 H/O Condenser foundation 21/12/15 (7k) 21/12/15 (7k) 1日 H/O Condenser foundation → 12/15 H/O Aux. equipment foundation of HRSG north side 21/11/15(月) 21/11/15(月) H/O Aux. equipment foundation of HRSG north side < 11/15 H/O GT Exhaust duct foundation (Assumed) 22/02/01 (火) 22/02/01 (火) 1日 H/O GT Exhaust duct foundation (Assumed) ◆ 02/01 H/O MSB East side (Assumed) 22/02/01 (火) 22/02/01 (火) H/O MSB East side (Assumed) → 02/01 8 🏢 MSB Full access (Except P/T foundation) 1日 22/01/15(土) 22/01/15(土) MSB Full access (Except P/T foundation)→ 01/15 H/O Foundation around CCW-Cooler 22/01/15(土) 22/01/15(土) H/O Foundation around CCW−Cooler ◆ 01/15 H/O Foundation around Transformer 18 22/03/10(木) 22/03/10(木) H/O Foundation around Transformer • 03/10 11 | | H/O Foundation of Powertrain 22/04/15(金) 22/04/15(金) 18 H/O Foundation of Powertrain → 04/15 Delivery date of Powertrains (GT,GEN,ST,GEN Tx) 22/04/15(金) 22/04/20(水) 5日 12 Delivery date of Powertrains (GT.GEN.ST.GEN Tx) ♦ 04/20 13 O/B GT & GEN 1日 22/07/15(金) 22/07/15(金) O/B GT & GEN → 07/15 22/11/15(火) 22/11/15(火) 14 Power Receiving 18 Power Receiving 11/15 15 H/O Foundation of No5 Intake area 18 22/09/30(金) 22/09/30(金) H/O Foundation of No5 Intake area • 09/30 Hydrostatic test ◆ 12/03 16 | | | | Hydrostatic test 10日 22/12/03 (±) 22/12/14 (7k) 17 Beginning Closed cooling water system flushing (Target) 1日 22/12/14 (7k) 22/12/14 (7k) 18SS-30 FI Beginning Closed cooling water system flushing (Target) 12/14 18 Receiving Lube Oil 18 23/01/18 (7k) 23/01/18 (7k) 208SS Receiving Lube Oil 01/18 Beginning CW system commissioning 1日 23/02/10(金) 23/02/10(金) 18SS+20 FI 19 Beginning CW system comm GT First Firing 05/08 20 GT First Firing 23/05/08(月) 23/05/08(月) 213 1日 Synchronization 1日 23/06/07 (水) 23/06/07 (水) 20FS+25日 Synchronization > 06/07 22 577日 21/10/01(金) 23/08/04(金) 23 HRSG 24 Make the condition for construction 21/10/01(金) 21/10/02(土) 2SS Make the condition for construction Center line marking 3日 21/10/01 (金) 21/10/04 (月) 24SS Center line marking 26 Chipping 15日 21/10/01(金) 21/10/18(月) Chipping 27 10日 21/10/05(火) 21/10/15(金) 26SS+3 ⊟ Packer setting Packer setting 28 Lav down Pipes under HRSG 10日 21/10/09 (土) 21/10/20 (水) 27SS+4日 Lav down Pipes under HRSG 9日 21/10/21(木) 21/10/30(土) 29 Short legs setting 28 Short legs setting 21/10/28(木) 21/11/01(月) 30 Prepare for installing Bottom casing 3日 31SF Prepare for installing Bottom casing 31 Lifting and installing Bottom casing 6日 21/11/01(月) 21/11/06(土) 29 Lifting and installing Bottom casing 32 Welding Short legs and Bottom casing 35 ⊟ 21/11/08(月) 21/12/17(金) Welding Short legs and Bottom casing 33 Setting and welding Brace gusset 35 FI 21/11/08(月) 21/12/17(金) 31 Setting and welding Brace gusset 34 Setting and welding SCR bottom frame 35 ⊟ 21/11/08(月) 21/12/17(金) 31 Setting and welding SCR bottom frame 35 Setting FL+2.5m floor structure 17 FI 21/11/08(月) 21/11/26(金) 31 Setting FL+2.5m floor structure Putting pipes on bottom casing 10日 21/11/27 (±) 21/12/08 (7k) 36 35 Putting pipes on bottom casing 37 HRSG Blow down tank 2 FI 21/10/27(水) 21/10/29(金) 38SF-10日 HRSG Blow down tank 38 KURE pipe rack (North on HRSG) 40 ⊟ 21/11/10(水) 21/12/25(土) 31FS+2日 KURE pipe rack (North on HRSG) 39 21/11/25(木) 21/12/14(火) 32SS+15日 Insulation and lagging on Bottom casing 17日 Insulation and lagging on Bottom casing 21/12/09 (木) 21/12/10 (金) 40 Unloading Side casing and Top Casing #1 2日 79FS+2日 Unloading Side casing and Top Casing #1 41 Suspend lifting work because of delivery conde 21/12/14(火) 21/12/17(金) 142SS-1E 42 | | Lifting and installing Side casing 42 ⊟ 22/01/01(土) 22/02/18(金) 94SS+20 ⊟ Lifting and installing Side casing 42SS+15日 Lifting and installing Top casing 43 Lifting and installing Top casing 40日 22/01/19 (水) 22/03/05 (土) 44 2日 22/02/03(木) 22/02/04(金) Lifting and installing SCR Lifting and installing SCR 45 22/03/14(月) 22/03/15(火) 101FS+10⊟ Lifting and installing AIG 2日 Lifting and installing AIG 46 Unloading Side casing and Top Casing #2 22/01/07(金) 22/01/07(金) 96SS-1 ⊟ 18 Unloading Side casing and Top Casing #2 Installation of piping, header, support, EXP inside HRSG 40 日 47 22/01/25(火) 22/03/11(金) 42SS+20 ⊟ nstallation of piping, header, support, EXP insid<mark>e HRSG</mark>) 48 Lifting and installing HRSG Inlet duct 2 FI 22/04/26(火) 22/04/27(水) 103 Lifting and installing HRSG Inlet duct Setting FL+29m floor structure (The part of over hang) 49 Setting FL+29m floor structure (The part of over hang) 55日 22/03/07(月) 22/05/09(月) 48FF+10 ⊟ Lifting Down comer piping (after pre-assembling) 50 Lifting Down comer piping (after pre-assembling) 8日 22/04/11(月) 22/04/19(火) 49SS+30 FI 51 Prepare Lifting Tube bundle (Around HRSG) 10 FI 22/04/28(木) 22/05/09(月) 49FS-10 ⊟ Prepare Lifting Tube bundle (Around HRSG) 52 Suspend outside work for transportation of GEN TX 2日 22/04/15(金) 22/04/16(土) 1255 Suspend outside work for transportation of GEN TX Prepare unloading Tube bundle (Storage area) 53 Prepare unloading Tube bundle (Storage area) 3日 22/04/28(木) 22/04/30(土) 48 54 Unloading Tube bundle #1 (3set) 22/05/02(月) 22/05/04(水) 53 Unloading Tube bundle #1 (3set) 55 Prepare installing Tube bundle #1 (3set) 3日 22/05/05(木) 22/05/07(土) 54 repare installing Tube bundle #1 (3set) 56 22/05/10 (火) 22/05/14 (土) 55,51 Lifting and installing Tube bundle #1 (3set) ifting and installing Tube bundle #1 (3set) 57 22/05/16(月) 22/05/20(金) Unloading Tube bundle #2 (12set) 5⊟ Unloading Tube bundle #2 (12set) 58 Prepare installing Tube bundle #2 (12set) 22/05/21(土) 22/05/24(火) Prepare installing Tupe bundle #2 (12set) Lifting and installing Tube bundle #2 (12set) 15日 22/05/25(水) 22/06/10(金) Lifting and installing Tube bundle #2 (12set) 22/05/21 (土) 22/06/28 (火) 56SS+10日 Setting FL+29m floor structure (Above tube bundle) g FL+29m floor structure (Above tube bundle) 60SS+10日 61 Lifting and setting HP-Drum 22/06/02(木) 22/06/02(木) Lifting and setting HP-Drum 62 Lifting and setting IP-Drum 22/06/23(木) 22/06/23(木) 59FS+10E Lifting and setting IP-Drum 63 Lifting and setting LP-Drum 22/07/06 (7k) 22/07/06 (7k) 62FS+10 ⊟ Lifting and setting LP-Drum 64 Lifting and installing HRSG Outlet duct 22/08/05(金) 22/08/06(土) 2 FI Lifting and installing HRSG Outlet duct Suspend outside work for transportation of GT & GEN 8日 65 22/07/13(水) 22/07/21(木) 186SS-2 E rk for transportation of GT & GEN 66 Adjusting HDR level (HP) 10 FI 22/07/07(木) 22/07/18(月) Adjusting HDR level (HP) 67 Adjusting HDR level (IP & LP) 15 ⊟ 22/07/19(火) 22/08/04(木) 66 Adjusting HDR level (IP & LP) Lifting Frame 7,9 and 8 68 Lifing Frame 7,9 and 8 25日 22/08/19(金) 22/09/16(金) 69 22/08/08(日) 22/08/18 (木) HRSG roof structure (main beam) 70 Setting roof structure (Including deferrable structure) 100日 22/08/08(月) 22/12/01(木) 69SS Setting roof structure (Including deferrable structure) Lifting and setting the silencer of HRSG 22/08/31(水) 22/09/05(月) 70SS+20日 71 5⊟ Lifting and setting the silencer of HRSG 72 22/11/02 (7k) 1250ton shift to lifting work of GT Inlet du 22/09/17(土) 73 Assembly accessory inside HRSG 22/11/28(月) 23/03/23(木) ssembly accessory inside HRSG 22/12/03 (土) 22/12/14 (水) Hydrostatic test of HRSG Excavation the foundation of UTAC (By Civil) 22/10/27(木) 22/12/01(木) 30 ⊟ dation of UTAC (By Civil) Urea to Ammonia conversion system 90 ⊟ 22/12/01(木) 23/03/15(水) Urea to Ammonia conversion system Installation the SCR catalyst 23/07/13(木) 23/08/04(金) 21FS+30日 20日 Installation the SCR catalyst 10 FI 21/11/25(木) 21/12/06(月) 79 Assembly 1250ton C/C Assembly 1250ton C/C 3.Considered the affection of KURE's schedule belows: NOTE

i) Because of delaying the side casing, installation Inlet duct is postponed.

ii) Because of delivery 12 TBs in one time, no enough area for pre-ass'y Outlet duct and GT Inlet duct on schedule.

TAIHEI DENGYO KAISHA.LTD.

1. The key date is subjected in the KOM held on 30th-Sep.

Construction Schedule of Unit-12 Rev.5a タスク名 開始日 終了日 先行タスク | 06月 | 2022年第3四半期 | 2022年第4四半期 | 1250tonC/C | work for GT inlet duct) | 11月 | 1250tonC/C | work for GT inlet duct) | 1250tonC/C | wor 2023年 第1四半期 2023年 第2四半期 12月 01月 02月 03月 04月 05月 2021年 第2四半期 2021年 第3四半期 2021年 第4四半期 2022年 第1四半期 2022年 第2四半期 第2四千期 2021年 第3四十期 2021年 第4四十期 2021年 第4四十期 10月 11月 11月 12月 01月 02月 03月 04月 05月 06月 05月 06月 07月 08月 80 1250tonC/C work for GT inlet duct 40 FI 22/09/19(目) 22/11/03(木) 220SS 81 Disassembly 1250tonC/C 10 FI 22/11/04(金) 22/11/15(火) 220 82 Assembly 400tonC/C 5⊟ 22/04/19(火) 22/04/23(土) 53SF-3日 83 Disassembly 400tonC/C 4日 22/06/15 (水) 22/06/18 (土) 59FS+3日 Disassembly 400tonC/C 84 85 Lifting and hang Pipes (Left side of HRSG) 80日 22/03/07(月) 22/06/07(火) 43 Lifting and hang Pipes (Left side of HRSG) Fitting Pipes (Inside of HRSG / HP) 22/07/28(木) 22/11/09(水) 66FS+8日 Fitting Pipes (Inside of HRSG / HP) 87 Fitting Pipes (Inside of HRSG / IP,LP) 90日 22/08/15(月) 22/11/26(土) 67FS+8日 Fitting Pipes (Inside of HR\$G / IP,LP) 88 Lifting and hang Pipes (Upper HRSG) 22/08/05(金) 22/10/13(木) Lifting and hang Pipes (Upper HR\$G) Fitting and welding Pipes in range of Hydrostatic 100日 22/07/19(火) 22/11/11(金) and welding Pipes in range of Hydrostatic 90 Fitting and welding Pipes out range of Hydrostatic 22/11/12(土) 23/03/31(金) 89SS+100日 120日 Fitting and welding Pines out range of Hydrostatic 22/10/29(土) 23/04/21(金) 20FF-14日 150日 91 Insulation work for high temp piping sulation work for high temp piping 92 7日 93 Preparing preassembling area for side casings 21/11/17 (水) 21/11/25 (木) 79SF Preparing preassembling area for side casings 21/12/09(木) 22/01/12(水) 94 Preassembly Side casing (2set) 30 H 40SS Preassembly Side casing (2set) 95 Preassembly Top casing (LP and IP) 30 ⊟ 21/12/09(木) 22/01/12(水) 94SS Preassembly Top casing (LP and IP) Installing lugging and attachement to Side casing (2set) 96 Installing lugging and attachement to Side casing (2set) 20日 22/01/08(十) 22/01/31(月) 42SS+6 FI Preassembly Top casing (HP) 97 Preassembly Top casing (HP) 20日 22/01/31(月) 22/02/22(火) 43SS+10 FI 98 Prepare for preassemble SCR 3日 22/01/13(木) 22/01/15(土) 42SS+10 FI Prepare for preassemble SCR Preassembly SCR 99 22/01/17(月) 22/02/02(水) Preassembly SCR 15⊟ 100 Prepare for preassemble AIG 3日 22/02/05(土) 22/02/08(火) 42SS+30 E Prepare for preassemble AIG 101 Preassembly AIG 18日 22/02/09 (水) 22/03/01 (火) 100 Preassembly AIG 102 Prepare for preassemble HRSG Inlet duct 4日 22/02/19(土) 22/02/23(水) Prepare for preassemble HRSG Inlet duct 42 103 Preassembly HRSG Inlet duct 22/02/24(木) 22/04/25(月) 102 Preassembly HRSG Inlet duct 104 Prepare for preassembly HRSG Outlet duct 7日 22/06/11(土) 22/06/18(土) Prepare for preassembly HRSG Outlet duct 105 Preassembly HRSG Outlet duct 40日 22/06/20(月) 22/08/04(木) Preassembly HRSG Outlet duct Prepare for preasembling Frame 7.9 and 8 106 Prepare for preasembling Frame 7.9 and 8 5日 22/07/07(木) 22/07/12(火) 105SS+15 ⊟ 107 Preassembling Frame 7.9 and 8 22/07/13 (7k) 22/09/14 (7k) 55日 Preassembling Frame 7.9 and 8 108 148日 22/07/18 (月) 23/01/05 (木) 109 HRSG Exhaust duct HRSG Exhaust duc 110 Preparation of the foundation 3⊟ 22/07/18(月) 22/07/21(木) 111SF Preparation of the foundation 22/07/21(木) 22/08/08(月) 112SF 111 Chipping and setting packers 15 ⊟ Chipping and setting packers 112 Building the structure for HRSG exhaust duct 40 FI 22/08/08(目) 22/09/22(木) Building the structure for HRSG exhaust duct $^{
m G}$ 113 Lifting the exhaust duct 30 ⊟ 22/09/23(金) 22/10/27(木) 112 Lifting the exhaust duct 114 Welding each exhaust duct blocks 50 H 22/10/17(月) 22/12/13(火) 113SS+20日 ding each exhaust duct blocks 115 Insulation work 50日 22/11/09(水) 23/01/05(木) 114SS+20日 Insulation work 116 117 Preassembling the exhaust duct 60日 22/08/02(火) 22/10/10(月) 113SF+15日 118 21/10/15 (金) 22/01/21 (金) Over Head Crane 85日 Over Head Crane Check the location of installation 120 Check the location of installation 21/11/01(月) 21/11/01(月) 121 Lifting and setting the rail for OHC 30日 21/11/02(火) 21/12/06(月) 120 Lifting and setting the rail for OHC Prepare for preassembling OHC 21/10/29(金) 21/11/04(木) 122 5日 Prepare for preassembling OHC 123 Unloading OHC material 21/11/04(木) 21/11/06(土) 124SF 2日 Unloading OHC material Preassembly OHC (Mech & Elec) 124 25日 21/11/06(土) 21/12/06(月) 125SF Preassembly OHC (Mech & Elec) 125 Lifting and setting Aux. OHC Garter 2日 21/12/06(月) 21/12/07(火) Lifting and setting Aux OHC Garter 126 Lifting and setting Main OHC Garter 21/12/08 (水) 21/12/09 (木) 2日 Lifting and setting Main OHC Garter 127 Laving temp cable from L11 30 H 21/10/15(金) 21/11/18(木) Laving temp cable from L11 126FS+6 ⊟ 128 Installing electrical equipment 15⊟ 21/12/17(金) 22/01/03(月) Installing electrical equipment 129 | | | | 18 22/01/10(月) 22/01/10(月) 128FS+5 FI Power receiving Commissioning & Load test 130 Commissioning & Load test 10日 22/01/11(火) 22/01/21(金) 129 131 132 306日 21/12/11 (土) 22/12/02 (金) 133 Center line marking 2日 21/12/15(水) 21/12/16(木) 455 Center line marking 134 6日 21/12/17(金) 21/12/23(木) 133 Chipping ___ 135 Setting packer and base plate 21/12/24(金) 21/12/28(火) 4⊟ Setting packer and base plate 136 Setting temporary rail and SARLIFT for installation conde 28 E 21/12/17(金) 22/01/18(火) 133 Setting temporary rail and SARLIFT for installation condenser 137 (Load test for SARLIFT) 22/01/18 (火) 22/01/18 (火) (Load test for SARLIFT) 138 Assembling the scaffolding around skirt 15日 21/12/27(月) 22/01/12 (水) Assembling the scaffolding around skirt 139 Preparation the lifting tool for the skirt 22/01/19(水) 22/01/20(木) 2日 Preparation the lifting tool for the skirt 140 Assembly the Unit carrier 21/12/11(土) 21/12/13(月) 142SS-3 FI 2日 Assembly the Unit carrier 141 Assembly the 750tonA/C 18 22/01/21(金) 22/01/21(金) 144SS-1 ⊟ Assembly the 750tonA/G 142 Delivery date of condenser(Unloading with 1250ton) 21/12/15 (水) 21/12/16 (木) 28 Delivery date of condenser(Unloading with 1250ton) 143 22/01/19(水) 22/01/21(金) 3日 Remove packing material Remove packing material 144 Installation Upper skirt 2⊟ 22/01/22(土) 22/01/24(月) 143 Installation Upper skirt 145 2 FI Installation Lower skirt 22/01/25(火) 22/01/26(水) 144 Installation Lower skirt 146 Fit up condenser skirt 3⊟ 22/01/27(木) 22/01/29(土) 145 Fit up condenser skirt 147 Assembling and welding skirt 8日 22/01/31(月) 22/02/08(火) 146 Assembling and welding skirt 148 Remove rail for condenser skirt 18 22/01/27(木) 22/01/27(木) 145 emove rail for condenser skirt 🖔 149 Installation Condenser shell of lower 1日 22/01/28(金) 22/01/28(金) 148 Installation Condenser shell of lower Installation Condenser shell of upper 150 22/01/29(土) 22/01/29(土) 149 Installation Condenser shell of upper 151 Disassembly the 750tonA/C 1日 22/01/29(土) 22/01/29(土) 150SS Disassembly the 750tonA/CN 152 Dismantling SARLIFT and temporary rail 22/01/31(月) 22/02/16(水) Dismantling SARLIFT and temporary rail ibling the scaffolding around condenser shell 153 Assembling the scaffolding around condenser shell 22/02/07(月) 22/02/11(金) 152SS+6日 154 Welding Condenser shell (outside / 1 layer) 22/02/12(土) 22/02/17(木) Welding Condenser shell (outside / 1 layer) 155 Fit up condenser skirt to condenser shell 22/02/18(金) 22/02/21 (月) Fit up condenser skirt to condenser shell 156 Installation the monorail of South side 20日 22/02/22(火) 22/03/16(水) Installation the monorail of South side 157 Installation the condenser water box of South side 4日 22/03/17(木) 22/03/21(月) 156 Installation the condenser water box of South side 22/03/22 (火) 22/04/25 (月) 157 158 Hand over around condenser to civil working 30日 Hand over around condenser to civil working 3. Considered the affection of KURE's schedule belows;

i) Because of delaying the side casing, installation Inlet duct is postponed.

ii) Because of delivery 12 TBs in one time, no enough area for pre-ass'y Outlet duct and GT Inlet duct on schedule.

TAIHEI DENGYO KAISHA.LTD.

1. The key date is subjected in the KOM held on 30th-Sep.

Construction Schedule of Unit-12 Rev.5a タスク名 開始日 終了日 先行タスク 2022年第1四半期 2022年第1四半期 12月 01月 02月 03月 04月 05月 06月 2021年 第2四半期 2021年 第3四半期 2021年 第4四半期 2022年 第3四半期 2022年 第4四半期 2023年 第1四半期 2023年 第2四半期 | 2022年 第5日 中海 | 2022年 第4日 中海 | 2023年 第1日 中海 | 2023年 05月 06月 07月 08月 159 22/04/26(水) 22/04/29(金) Condenser tube cleaning unit 4 FI 158 160 Installation the CW pipe 45 FI 22/04/26(火) 22/06/16(木) 158 Installation the CW pipe Assembling Exp.J Welding Exp.J 161 🎹 Assembling Exp.J 1日 22/11/21(月) 22/11/21(月) 193,196 162 Welding Exp.J 10日 22/11/22(火) 22/12/02(金) 163 164 504日 22/01/12 (水) 23/08/22 (火) GT/ST/Generator GT/ST/Generator 165 Setting template for anchor bolts 40日 22/01/12(水) 22/02/28(月) mplate for anchor bolts 166 Concreteing work by PDC/PY 40日 22/02/28(月) 22/04/15(金) 167SF Concreteing work by PDC/PY 167 14日 22/04/15 (金) 22/04/30(土) Remove templates 168 Center line marking 5⊟ 22/05/02(月) 22/05/06(金) Center line marking Chipping ___ 169 10日 22/05/07(土) 22/05/18(水) 168 Chipping 22/05/19(木) 22/06/04(土) 169 Packer setting 170 15日 Packer setting 171 Setting the base plate Setting the base plate 7日 22/06/06(月) 22/06/13(月) 170 172 7日 22/06/14(火) 22/06/21(火) 171 Setting the bearing case Setting the bearing case 173 18 22/06/22 (7k) 22/06/22 (7k) Lay down pines under GT 172 Lay down pipes under GT 174 Lay down pipes under ST 3⊟ 22/06/23(木) 22/06/25(土) 173 Lay down pipes under ST 175 IP/LP-MSV Lifting and setting 5 FI 22/06/18(土) 22/06/23(木) 173FF+1 FI IP/LP-MSV Lifting and setting 176 Lifting and hanging EB01 1日 22/06/13(月) 22/06/14(火) 178SF-2 FI Lifting and hanging EB01 177 Unloading the Gantry system for GT 1日 22/06/07 (火) 22/06/08 (水) 178SF-7 FI Unloading the Gantry system for GT < 06/08 178 Setting the Gantry system for GT 22/06/16(木) 22/07/11(月) 179SF 21日 Setting the Gantry system for GT Load test for Gantry system 179 Load test for Gantry system 2日 22/07/11(月) 22/07/13 (7k) 186SF-2E 180 | | | | 22/04/15 (金) 22/04/15 (金) Delivery date of Powertrains Delivery date of Powertrains ◆ 04/15 22/04/15 (金) 181 22/04/15 (金) GEN Transformer O/B ST Lower casing Unloaded and store (with OHC) 182 22/04/16(土) 22/04/16(土) ST Lower casing Unloaded and store (with OHC) 183 Generator Unloaded and store 22/04/18(月) 22/04/18 (月) Generator Unloaded and store 184 GT Unloaded and store 3日 22/04/19(火) 22/04/21(木) GT Unloaded and store 185 GT & GEN stored at site 63 ⊟ 22/05/05(木) 22/07/18(月) 188SF GT & GEN stored at site 186 GT O/B (with Gantry) 18 22/07/15 (金) 22/07/15 (金) 1388 GT O/B (with Gantry) 07/15 Setting the Gantry crane for GEN 187 22/07/16(±) 22/07/16(±) 186 18 Setting the Gantry crane for GEN I GEN O/B (with Gantry) 07/18 188 18 22/07/18(月) 22/07/18(月) 187 GEN O/B (with Gantry) ST Lower casing O/B (with OHC) 189 18 22/07/20 (大) 22/07/20 (大) 188FS+1日 Lower casing O/B (with OHC) 190 22/07/19(火) 22/08/04(木) Dismantling the Gantry system 15 ⊟ 188 nantling the Gantry system 22/08/11(木) 22/09/15(木) 190FS+5 FI 191 Lifting and setting ST 31 FI Lifting and setting ST ST Rotor 192 ST Rotor 18 22/09/09(金) 22/09/09(金) 191SS+25E 193 Final alignment for ST 30 H 22/09/10(土) 22/10/14(金) 192 Final alignment for ST ST Upper Casing 194 1日 22/10/15(土) 22/10/15(土) 193 ST Upper Casing 195 HP-MSV lifting and setting 5日 22/09/10(土) 22/09/15(木) 192 HP-MSV lifting and setting 196 Adjust the gap between Rotor and casing 30日 22/10/17(月) 22/11/19(土) 194 Adjust the gap between Rotor and casing 197 22/11/21(月) 22/12/19(月) Grouting ST 25日 Grouting ST 198 22/11/26(土) 23/01/06(金) 208SF-10日 Installing accessories 35日 Installing accessorie 199 22/09/09(金) 22/10/13(木) Installing IPB 30日 Installing IPB 200 First alignment of GT and GEN 50 ⊟ 22/07/27(水) 22/09/22(木) First alignment of GT and GEN Grouting GEN and GT 22/09/23(金) 22/10/21(金) Grouting GEN and GT 201 25日 200 202 20日 22/10/05(水) 22/10/27(木) 201SS+10日 GT enclosure (Lower) GT enclosure (Lower) 203 Installting pipes and accessories to GT 22/10/22(土) 23/03/10(金) 120日 Installting pipes and accessories to GT Assembly slip ring, lead box and accessories to GEN 204 Assembly slip ring, lead box and accessories to GEN 28日 22/10/22(土) 22/11/23 (水) 201 205 22/11/21(月) 22/12/13(火) Assembly 3S clutch 20 ⊟ 193.196 Assembly 3S clutch 206 Final alignment Final alignment 30 FI 22/12/14 (水) 23/01/17 (火) 205 207 Joint coupling Joint coupling 10日 23/01/18 (7k) 23/01/28 (±) 206 208 Lube oil flushing 75 FI 23/01/18 (水) 23/04/14 (金) 206 Lube oil flushing 209 Installation GT enclosure 40 FI 22/12/31 (土) 23/02/15 (水) 206SS+15 ⊟ 210 Installation ST enclosure 50 FI 22/12/02(金) 23/01/28(十) 197SS+10日 tallation \$T enclose 211 Door fan test 2日 23/04/19 (水) 23/04/21 (金) 212SF-2日 Door fan test K 212 10日 23/04/24(月) 23/05/05(金) 213SF-1日 Blowing out Blowing out 213 1日 23/05/06(土) 23/05/06(土) 74FS+122日 First Fire 214 23/07/31(月) 23/08/22(火) 21FS+45日 Remove temporary strainer 20日 ve temporary strainer 215 22/06/17(金) 23/04/29(土) 216 GT Air inlet 271日 Center line marking 217 Center line marking 2日 22/09/05(月) 22/09/07(水) 218SF 22/09/07(水) 22/09/19(月) 220SF 218 10日 Setting the base plate Setting the base plate 219 ly the Air inlet duct Lifting and installation the Air inlet duct (Vertical) 220 Welding Air inlet duct (Vertical) 221 Welding Air inlet duct (Vertical) 22/09/30(金) 22/11/26(土) 220SS+10日 50日 Lifting and installation the Air inlet filter 222 Lifting and installation the Air inlet filter 22/11/28(月) 23/01/18(水) 45日 221 Welding Air inlet filter 223 Welding Air inlet filter 70 日 22/12/09(金) 23/02/28(火) 222SS+10日 Lifting and assembly the Air inlet manifold 224 4 FI 22/09/30(金) 22/10/05(水) 202SF Lifting and assembly the Air inlet manifold 225 Lifting and installation the Air inlet duct (Horizontal) 8日 22/10/05 (水) 22/10/13 (木) 224 ing and installation the Air inlet duct (Horizontal) 226 Automatic roller shutter 2日 22/10/14(金) 22/10/15(土) 225 Automatic roller shutter 227 Welding Air inlet duct (Horizontal) 25日 22/10/14(金) 22/11/11(金) 225 (elding Air inlet duct (Horizontal) 228 Filter element installation 5日 23/04/24(月) 23/04/29(土) 20SF-7日 229 230 Auxiliary Equipment (O/B) 421日? 21/11/10 (水) 23/03/15 (水) Auxiliary Equipment (0/B) 231 1&3 around Power Train & North east of MSB 224日 22/01/15(土) 22/10/03(月) 1&3 around Power Train & North east of MSB 22/01/15(土) 22/01/26 (水) 232 Chipping and packer setting 10日 Chipping and packer setting 233 Seal oil unit 2日 22/06/01(水) 22/06/03(金) Seal oil unit 234 H2 cooler 2日 22/06/03 (金) 22/06/06 (月) 235SF H2 cooler 235 Platform under the GEN 5⊟ 22/06/06(月) 22/06/11(土) 178SF-4日 nder the GEN Platfo 236 Temp hanging Main Steam Piping with scaffolding 25日 22/02/11(金) 22/03/11(金) 240 Temp hanging Main Steam Piping with scaffolding 237 22/02/02 (水) 22/02/03 (木) 232FS+5日 2日 Sampling system Sampling system 3. Considered the affection of KURE's schedule belows:

i) Because of delaying the side casing, installation Inlet duct is postponed.

ii) Because of delivery 12 TBs in one time, no enough area for pre-ass'y Outlet duct and GT Inlet duct on schedule

TAIHEI DENGYO KAISHA.LTD.

1. The key date is subjected in the KOM held on 30th-Sep.

Rev.5a タスク名 終了日 先行タスク 2022年
2021年第2四半期 2021年第3四半期 2021年第4四半期 2022年第1四半期 2022年第2四半期 2022年第3四半期 2022年第4四半期 2023年第1四半期 2023年第1四半期 2023年第1四半期 2023年第3四半期 2023年第3四半期 2023年第1四半期 2023年第1四半期 2023年第3四半期 2023年第3回半期 2023 2021年 第2四半期 238 2 FI 22/02/04(金) 22/02/05(土) 237 Light oil drain unit GT purge air compressor 🛴 239 GT purge air compresso 2日 22/02/07(目) 22/02/08(火) 238 240 GT purge are reservoir 2日 22/02/09 (水) 22/02/10 (木) 239 GT purge are reservoir 241 Light oil flow divider unit & platform 2日 22/09/23(金) 22/09/24(土) 202SS-10日 Light oil flow divider unit & platform 242 GT Purge air unit 2日 22/09/23(金) 22/09/24(土) 202SS-10日 GT Purge air unit 243 2日 22/10/01(土) 22/10/03(月) 241FS+5日 Fuel gas unit Fuel gas unit 245 2 MSB Inside North-West 233日? 22/01/15(土) 22/10/13(木) 2 MSB Inside North-West Temporary floor above ST Blowdown tank 22/01/15(土) 22/02/01(火) 8SS 246 15日 Temporary floor above ST Blowdown tank 22/01/27(木) 22/02/07(月) 247 Chipping and packer setting 10日 Chipping and packer setting 248 4⊟ 22/02/11(金) 22/02/15(火) 240 Preparation hauling equipment Preparation hauling equipment 3日 248 249 Condenser water box 22/02/16(水) 22/02/18(金) Condenser water box 250 Closed cooling water pump 22/02/19(土) 22/02/21(月) 249 2日 Closed cooling water pump 251 2⊟ 22/02/22 (火) 22/02/23 (水) 250 Condenser vacuum pump Condenser vacuum pump 252 2日 22/02/24(木) 22/02/25(金) 251 Dismantling hauling equipment Dismantling hauling equipment 253 ST blow down tank 18 22/02/24(木) 22/02/24(木) 251 ST blow down tank 254 GT casing cooling fan 18 22/02/25(金) 22/02/25(金) 253 GT casing cooling fan 255 GT compressor blade washing device 18 22/02/26(土) 22/02/26(土) 254 GT compressor blade washing device 256 Building MSB North structure 40 FI 22/04/15(金) 22/05/31(火) 166 Building MSB North structur \$T Blow down tank structure 257 ST Blow down tank structure 20 日 22/04/30(土) 22/05/23(月) 253FS+55日 258 === Pre-assembly structure for Air inlet duct access 30日 22/05/03 (火) 22/06/07 (火) 259SF Pre-assembly structure for Air inlet duct access 259 Building structure for Air inlet duct access 2 FI 22/06/07(火) 22/06/08(水) 256FS+5日 Building structure for Air inlet duct access 260 Closed cooling water stand pipe 10日 22/06/09(木) 22/06/20(月) 259 Closed cooling water stand pipe 261 Installing IPB 22/09/09(金) 22/10/13(木) 190FS+30日 30日 Installing IPB 262 ST Blowdown pit sump pump 2日 22/02/24(木) 22/02/25(金) 253SS ST Blowdown pit sump pump 263 264 6 MSB Inside South-West 216日 22/02/11 (金) 22/10/20 (木) 6 MSB Inside South-West Chipping and packer setting 265 22/02/28 (月) 22/03/10 (木) 255 Chipping and packer setting 10日 22/03/11(金) 22/03/12(土) 265 266 === 2⊟ Condensate extraction pump Condensate extraction pump 266SS 267 CEP access stair 22/03/11(金) 22/03/11(金) 1日 CEP access stair 268 Trip valve unit 18 22/03/12(±) 22/03/12(±) 269SS Trip valve unit 269 === 18 22/03/12(土) 22/03/12(土) 267 Control oil unit Control oil unit 270 Building MSB South structure 22/02/11(金) 22/03/11(金) 240 25 FI Building MSB South structure Gland condenser and fan 22/03/01(火) 22/03/01(火) 270SS+15日 271 Gland condenser and fan 18 272 Plant and Instrument air receiver 2日 22/10/17(目) 22/10/18(火) 273SS Plant and Instrument air receive 273 Plant air compressor 2日 22/10/17(月) 22/10/18(火) 194 Plant air compressor 274 Instrument air dryer 2日 22/10/19 (水) 22/10/20 (木) 273 275 CEP pit sump pump 2日 22/03/14(月) 22/03/15(火) 266 CEP pit sump pump 276 Condenser hotwell pit sump pump 22/03/16(水) 22/03/17(木) 275 Condenser hotwell bit sump pump 277 278 22/03/05(土) 23/02/24(金) 7 Lube oil room 306日 279 Chipping and packer setting 10日 22/03/05(土) 22/03/16(水) 265SS+5 ⊟ Chipping and packer setting 22/03/17(木) 22/03/17(木) 279 280 Disassemble structure 1日 Disassemble structure 281 🏢 22/03/18(金) 22/03/18(金) Lube oil reservoir 1日 Lube oil reservoir 22/03/18(金) 22/03/18(金) 282 Assemble structure 1日 281SS Assemble structure 283 22/03/17(木) 22/04/02(土) 280SS Open floor 15日 Open floor Lube oil filter with structure 2⊟ 22/03/19(土) 22/03/21(月) 283SS+2日 284 Lube oil filter with structure 285 Lube oil cooler 1 H 22/03/19 (±) 22/03/19 (±) 284SS Lube oil cooler JOP for GEN 286 2⊟ 22/03/22 (火) 22/03/23 (水) 284 JOP for GEN 287 JOP for ST 2日 22/03/22 (東) 22/03/23 (水) 284 JOP for ST 288 Lube oil purifier unit 2⊟ 22/03/22 (火) 22/03/23 (水) 284 ube oil purifier unit 289 Lube oil transfer pump 2日 22/03/22 (東) 22/03/23 (水) 284 Lube oil transfer pump 290 Lube oil accumulator 1日 22/03/22(火) 22/03/22(火) 284 Lube oil accumulator 291 Lifting piping into Lube oil room 20 日 22/03/23 (水) 22/04/14 (木) 290 Lifting piping into Lube oil roo 292 TCA filter 1日 22/09/10(土) 22/09/10(土) 193SS TCA filter 293 TCA filter support 8日 23/02/16(木) 23/02/24(金) 209 TCA filter support 294 22/02/01 (火) 22/08/09 (火) 295 9 East of MSB 9 East of MSB 22/02/01 (火) 22/02/17 (木) 296 Chipping and packer setting 15日 Chipping and packer setting 297 🏢 Light Oil main pump unit 2日 22/02/18(金) 22/02/19(土) 296 Light Oil main pump unit 298 🏢 GT light oil last chance filter 2日 22/02/21 (月) 22/02/22 (火) 297 GT light oil last chance filter 22/02/23 (水) 22/02/24 (木) 298 299 | | | | GT light oil drain tank unit 2日 GT light oil drain tank unit 22/02/25(金) 22/02/26(土) 299 300 GT fuel gas flow meter 2日 GT fuel gas flow meter 301 Pipe rack from L11 to L12 (except around EB02) 22/02/12(土) 22/04/22(金) 296SS+10日 60日 Pipe rack from L11 to L12 (except around EB02) Temp hanging Main Steam Pining Temp hanging Main Steam Piping 22/04/23(土) 22/05/10(火) 302 15⊟ 301 303 Building structure for FB02 6 FI 22/03/31(木) 22/04/06(水) 301FS-20日 Building structure for EB02 Preassembly EB02 22/03/15(火) 22/04/07(木) 305SF 304 20日 Preassembly EB02 305 Lifting and installation EB02 2日 22/04/07(木) 22/04/08(金) 303 Lifting and installation EB02 306 Sound proof around EB02 20日 22/04/23(土) 22/05/16(月) 301 Sound proof around EB02 Pipe rack from L11 to L12 (Above EB02) 307 Pipe rack from L11 to L12 (Above EB02) 30 FI 22/05/17(火) 22/06/20(月) 306 GT enclosure ventilation fan 308 GT enclosure ventilation fan 2日 22/08/05(金) 22/08/06(土) 190 309 Oil mist separator unit 2日 22/08/08 (月) 22/08/09 (火) 308 Oil mist separator unit 310 Oily drain pit sump pump 2日 22/02/10(木) 22/02/12(土) 301SF Oily drain pit sump pump K 22/02/10(木) 22/02/12(土) 301SF 311 Chemical drain pit sump pump 2日 Chemical drain pit sump pump 312 10 North of HRSG 313 10 North of HRSG 343 ⊟ 21/11/10 (水) 22/12/14 (水) 314 KURE pipe rack (North on HRSG) 40日 21/11/10(水) 21/12/25(土) 31FS+2日 KURE pipe rack (North on HRSG) Chipping and packer setting 315 Chipping and packer setting 15日 21/11/16(火) 21/12/02(木) 21/12/03 (金) 21/12/04 (土) 315 316 Lower Fuel gas heater 2日 Lower Fuel gas heater

3.Considered the affection of KURE's schedule belows:

i) Because of delaying the side casing, installation Inlet duct is postponed.

ii) Because of delivery 12 TBs in one time, no enough area for pre-ass'y Outlet duct and GT Inlet duct on schedule

Construction Schedule of Unit-12

TAIHEI DENGYO KAISHA.LTD.

1. The key date is subjected in the KOM held on 30th-Sep.

Rev.5a タスク名 開始日 終了日 先行タスク 2023年 第2四半期 2021年 第2四半期 2021年 第3四半期 2021年 第4四半期 2022年 第1四半期 2022年 第2四半期 2022年 第3四半期 2022年 第4四半期 2023年 第1四半期
 第2四半期
 2021年 第3四半期
 2021年 第4四十級

 05月
 06月
 07月
 08月
 09月
 10月
 11月

 Support structure for FGH
 | 2022年 第1四十巻| | 2023年 第2四半期 | 2023年 第3四半期 | 2023年 第3四半期 | 2023年 第3四半期 | 12月 | 01月 | 02月 | 03月 | 04月 | 05月 | 06月 | 07月 | 08月 | 09月 | 10月 | 11月 | 12月 | 01月 | 02月 | 03月 | 04月 | 05月 | 06月 | 07月 | 08月 317 5 FI 21/12/06(日) 21/12/10(金) 316 Support structure for FGH 318 Upper Fuel gas Heater 2日 21/12/11(土) 21/12/13(月) 317 Upper Fuel gas Heater 319 GT water injection system 2日 21/12/14(火) 21/12/15(水) 318 GT water injection system 320 === Feed water pump 2日 21/12/16(木) 21/12/17(金) 319 Feed water pump 321 Chemical dosing system 2日 21/12/18(土) 21/12/20(月) 320 Chemical dosing system 322 50日 21/12/27(月) 22/02/22(火) 321FS+5日 FWP sun shade FWP sun shade 22/01/31(月) 22/02/16(水) 322SS+30日 FGH Maintenance platform 323 FGH Maintenance platform 15日 324 Reserved feed water tank 2日 22/01/31(月) 22/02/01 (火) 322SS+30日 Reserved feed water tank 325 HRSG Topping up pump 1日 22/02/02 (7k) 22/02/02 (7k) 324 HRSG Topping up pump 326 LP-ECO Recirculation pump 2日 22/07/07(木) 22/07/08(金) -ECO Recirculation pump 327 Dry air system for HRSG 2日 22/07/07(木) 22/07/08(金) 326SS Dry air system for HRSG 22/01/15(土) 22/01/17(月) 328 2日 HRSG blowdown pit sump pump HRSG blowdown pit sump pump 329 HRSG Washing water sump pump 2日 22/12/13(火) 22/12/14(水) 75FS+10日 HRSG Washing water sump 330 12 CCW cooler area 59 FI 22/02/26(十) 22/05/05(木) 331 12 CCW cooler area 332 Chipping and packer setting 10日 22/02/26 (±) 22/03/09 (7k) 252 Chipping and packer setting Sea water booster pump 333 4 FI 22/03/10(木) 22/03/14(月) 332 Sea water booster pump 334 CW vent pump and seal water booster 4 FI 22/03/10(木) 22/03/14(月) 332 CW vent pump and seal water booster 335 CCW cooler 4 FI 22/03/10(木) 22/03/14(月) 332 CCW cooler 336 🏢 CCW cooler sun shade 25日 22/04/07(木) 22/05/05(木) 335FS+20日 CCW cooler sun shade 337 Sea water sump pump 4日 22/03/16 (水) 22/03/19 (土) 332FS+5日 Sea water sump pump 338 339 | | | | 2日 22/11/04(金) 22/11/05(土) 220 TCA cooler 340 Dismantle the temporary slope at south side of HRSG 22/10/27(木) 22/12/01(木) 342SF 30日 Dismantle the temporary slope at south CO2 Fire fighting 23/01/17(火) 23/03/15(水) 342SS+40日 CO2 Fire fighting 342 | | | | UTAC system 90日 22/12/01(木) 23/03/15(水) UTAC system 343 Silencer at MSB roof 3日 22/12/19(月) 22/12/21(水) 222SS+18日 Silencer at MSB roof 344 🏢 LPS to LMX LO transfer pump for U-12 (if necessary) 2日 22/10/01(土) 22/10/03(月) LPS to LMX LO transfer pump for U-12 (if necessary) 345 163日? 22/10/01(土) 23/04/08(土) 346 Intake No5 area Intake No5 area 347 Marking center line 10日 22/10/01(土) 22/10/13(木) 348SF Marking center line 348 Chipping and packer setting 20 日 22/10/13(木) 22/11/05(土) 349SF ipping and packer setting 349 10 FI 350SF Setting the baseplate 22/11/05(十) 22/11/17(木) Setting the baseplate 350 Grouting 20日 22/11/17(木) 22/12/10(土) 351SF Grouting 351 Circulating water pump 20日 22/12/10(十) 23/01/02(月) 15FS+60日 Circulating water pump 352 Circulating water pump outlet piping 25日 23/01/03(火) 23/01/31(火) 351 Circulating water pump outlet piping 353 Auxiliary circulation water pump 5日 22/12/12(月) 22/12/16(金) 351SS+1日 Auxiliary circulation water pump 354 Electro chlorination plant 60 ⊟ 22/11/05(土) 23/01/13(金) 348 Electro chlorination plant 355 23/01/14(土) 23/01/25(水) 354 Cathodic protection 10日 Cathodic protection 356 22/11/05(土) 22/11/22(火) 348 Screen system 15日 Screen system 357 22/12/17(土) 22/12/19(月) 353 Screen wash water pump 2日 Screen wash water pump 358 50日 23/02/10(金) 23/04/08(土) CW system commissioning (Target) CW system commissioning (Target) 359 360 New Gantry crane for CW pump 85日 23/04/10(月) 23/07/17(月) New Gantry crane for CW pump 361 Assembling New gantry crane 45日 23/04/10(月) 23/05/31(水) 346 Assembling New gantry crane 362 23/06/01(木) 23/07/17(月) 361 40日 Test operate for New gantry crane Test operate for New gantry crane 363 317 FI 364 11 Tranceformer area 22/03/11 (金) 23/03/15 (水) Preparation work in the area 365 Preparation work in the area 5⊟ 22/03/11(金) 22/03/16(水) 366 Setting the channel base for Station 25 FI 22/03/11(金) 22/04/08(金) 36555 Setting the channel base for Station 367 Setting the channel base for Unit TX and others Txs 25 ⊟ 22/04/04(月) 22/05/02(月) 365SS+20 F Setting the channel base for Unit TX and others Txs 368 Station transforme 2 FI 22/04/09(土) 22/04/11(月) 366 Station transformer 369 Assembly Station Tx 50日 22/04/12(火) 22/06/08(水) 368 Assembly Station 370 Unit transformer 2日 22/05/03 (火) 22/05/04 (水) 367 Unit transfor 371 Assembly Unit Tx 50日 22/05/23(月) 22/07/19(火) 369SS+35E Assembly Unit Tx 372 22/05/03(火) 22/05/04(水) SFC transformer SFC transfor 373 2日 22/05/03 (火) 22/05/04 (水) Excitation transfor 374 Assembly the accessories for small TXs 22/07/02(土) 22/07/09(土) 371SS+35日 Assembly the accessories for 375 Preparation for Generator transformer 30日 22/03/11(金) 22/04/15(金) 376SF Preparation for Generator transformer 376 5日 22/04/15(金) 22/04/20(水) 181SS Generator transformer O/B Generator transformer O/B 377 Assembly the accessories for GEN TXs 22/04/21(木) 22/07/11(月) 376 70日 Assembly the accessories for GEN TXs 378 Assembly the support for Bus duct(Gen. Unit) 20日 22/07/11(月) 22/08/02(火) 374 Assembly the support for Bus duct (Gen Unit) 379 22/07/14(木) 22/09/21(水) 371SS+45日 Lifting Bus duct for Tx (Gen. Unit) 60日 Lifting Bus duct for Tx (Gen, Unit) 380 Filling 275kV cable box with oil (St Tx & GEN Tx) 22/07/18(月) 22/09/13(火) 376SS+80日 50日 Filling 275kV cable box with oil (St Tx & GFN Tx) 381 Power receiving 18 22/11/15(火) 22/11/15(火) 14SS 382 22/12/01(木) 23/03/15(水) Building Sun Shade by civil 90 FI Building Sun Shade by civil 383 384 Electric & Instrument 349日 22/01/18(火) 23/02/28(火) 385 Panels 180日 22/02/01(火) 22/08/29(月) Panels 386 Carry in panels to the electrical room 103日 22/02/01(火) 22/05/31(火) Carry in panels to the electrical room 387 Carry in panels to the HRSG electrical room 22/05/02(月) 22/05/30(月) 25日 Carry in panels to the HRSG electrical room 388 Carry in panels to the CWP electrical room 25日 22/08/01 (月) 22/08/29 (月) Carry in panels to the CWP electrical room 389 Cable tray 313日 22/01/18 (火) 23/01/17 (火) Cable tray 390 🏢 in Electrical room 80日 22/01/18(火) 22/04/20 (7k) n Electrical room 391 on L11 rink bridge 26 ⊟ 22/04/01(金) 22/04/30(土) on L11 rink bridge 392 in MSB 22/03/14(月) 22/08/11 (木) in MSB 393 around HRSG 180日 22/05/02(月) 22/11/26(土) around HRSG 394 | | | | under exhaust duct and in stack 80日 22/10/17(月) 23/01/17(火) under exhaust duct and in stack 22/07/18(月) 22/12/15(木) 395 around Intake No5 130日 3. Considered the affection of KURE's schedule belows:

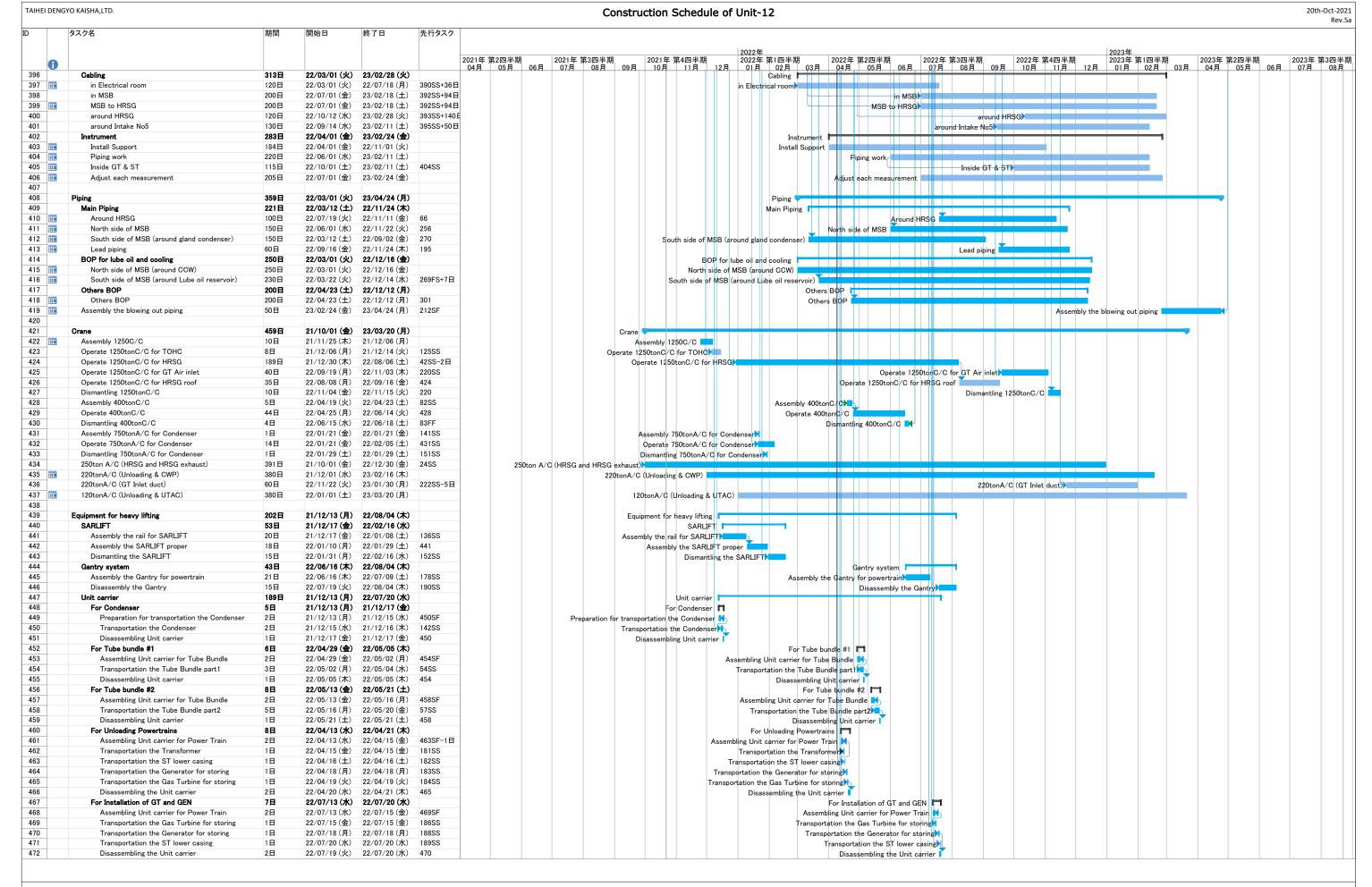
i) Because of delaying the side casing, installation Inlet duct is postponed.

ii) Because of delivery 12 TBs in one time, no enough area for pre-ass'y Outlet duct and GT Inlet duct on schedule.

Construction Schedule of Unit-12

TAIHEI DENGYO KAISHA.LTD.

1. The key date is subjected in the KOM held on 30th-Sep.



Monthly Waste Flow Table for September 2022

Project: Lamma Power Station Extension Civil and Building Works for Unit L12

Contractor: Paul Y. Construction Company, Limited

Ben Lam Record by: Year of Record: 2020, 2021 & 2022

MM.YYYY	Actual Quantities of Inert C&D Materials Generated Monthly									ual Ouantitie	s of Non-ine	rt C&D Mat	erials Gene	rated Mont	thly	
	Exca	Excavated Materials			Non-excavated Materials											
	Disposed in Public Fill	Disposed in Sorting Facilities	Others (e.g Reused in the Contract / Other Projects)	Broken Concrete or Construction Waste Collected by Recycled Company	Reused in the Contract	Reused in other Projects	Disposed in Public Fill	Disposed in Sorting Facilities	Metals (steel bar / metal strip) (1)	Metals (aluminum can) (1)	Paper / cardboard packaging (1)	Plastics	Chemical waste (wasted lubricant oil/oil container)	Chemical waste (wasted lubricant oil/oil container)	Other, e.g. general refuse	
	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000L)	(in '000kg)	(in '000kg)	
Dec 2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Jan 2021	0.00	0.00	21020.16	0.00	0.00	0.00	0.00	0.00	8.82	0.00	0.00	0.00	0.00	0.00	0.00	
Feb 2021	0.00	0.00	18083.97	0.00	0.00	0.00	0.00	0.00	18.25	0.00	0.25	0.00	0.00	0.00	0.00	
Mar 2021	0.00	0.00	9048.21	0.00	0.00	0.00	0.00	0.00	7.69	0.00	0.00	0.00	0.00	0.00	2.61	
Apr 2021	0.00	0.00	3205.15	0.00	0.00	0.00	0.00	0.00	28.08	0.00	0.00	0.00	0.00	0.00	14.45	
May 2021	0.00	0.00	6267.49	0.00	0.00	0.00	0.00	0.00	34.68	0.00	0.00	0.00	0.00	0.00	0.00	
Jun 2021	0.00	0.00	6555.38	0.00	0.00	0.00	0.00	0.00	26.87	0.00	0.00	0.00	0.00	0.00	25.03	
Jul 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.95	0.00	0.00	0.00	0.00	0.00	10.97	
Aug 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.55	0.00	0.00	0.00	0.00	0.00	3.49	
Sep 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.28	49.15	
Oct 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.47	0.00	0.00	0.00	0.00	0.00	62.08	
Nov 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.08	0.00	0.00	0.00	0.00	0.00	34.17	
Dec 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.36	0.00	0.00	0.00	0.00	0.00	52.18	
Jan 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.93	0.00	0.00	0.00	0.00	0.00	42.73	
Feb 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.62	
Mar 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.21	0.00	0.000	0.00	0.00	0.00	25.70	
Apr 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.51	0.00	0.00	0.00	0.00	0.00	0.00	52.83	
May 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.36	0.00	0.00	0.00	0.00	0.00	38.60	
Jun 2022	0.00	0.00	6645.22	0.00	0.00	0.00	0.00	5.70	0.00	0.00	0.000	0.00	0.00	0.00	37.38	
Jul 2022	0.00	0.00	4710.98	0.00	0.00	0.00	0.00	6.58	11.55	0.00	0.000	0.00	0.00	0.00	25.22	
Aug 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.60	0.42	21.74	
Sep 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.64	0.00	0.000	0.00	0.00	0.00	48.57	
Total	0.00	0.00	75536.55	0.00	0.00	0.00	0.00	17.79	271.49	0.00	0.25	0.00	1.00	0.70	555.52	

Total Inert C&D Waste Materials		Non-inert C&D Materials						
Generated	C&D Materials Recycled	C&D Waste Disposed of at Landfill	Chemical Waste					
75554.34 tonnes	271.74 tonnes	555.52 tonnes	0.70 tonnes					

Where	(A)	Inert C&D materials include bricks, concrete, building debris, rubble and excavated spoil. In total, 75554.34 tonnes of inert C&D material were generated from the Project, of which 75536.55 tonnes were reused in this and other contracts, and the remaining tonnes were disposed as public fill to Fill Banks / Sorting Facilities.
	(b)	Non-inert C&D materials (construction wastes) include metals, paper / cardboard packaging waste, plastics and other wastes such as general refuse. Metals generated from the Project were grouped into construction wastes as the materials were not disposed of with others at the public fill.
	(c) 11640 kg of metals, 0 kg of papers/ cardboard packing and 0 kg of plastics were sent to recyclers for recycling during the reporting period.
	(d	Construction wastes other than metals, paper/cardboard packaging, plastics and chemicals were disposed of at Landfill.
toe.		(1) metal paper & plactic were collected by recycler

- (1) metal, paper & plastic were collected by recycler
 (2) The performance target of waste recycling are specified in the Contract.
 - (3) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
 - (4) Plastics refer to plastic bottles/ containers, plastic/ foam from packaging material.
 - (5) Broken concrete for recycling into aggregates.
 - (6) Disposal of inert waste to public fill or sorting facilities will NOT be considered as recycled waste.

Monthly Waste Flow Table for September 2022

Project: Civil Works for No. 5 C.W. Intake and Cable Bridge at Lamma Power Station Extension

Contractor: Paul Y. Construction Company, Limited

Record by: Ben Lam
Year of Record: 2020, 2021 & 2022

MM.YYYY	Actual Quantities of Inert C&D Materials Generated Monthly									ual Ouantitio	s of Non-ine	+ C 2 D Mate	oriale Cone	rated Mont	hlv
IVIIVI. I I I I	F	avated Mate		ties of inert (excavated Ma	,		ACI	uai Quantitie	S OF NOTI-ITIE	l Cad Mali	enais Gene	rated Mont	riiy
	Disposed in Public Fill	Disposed in Sorting Facilities	Others (e.g Reused in the Contract / Other Projects)	Broken Concrete or Construction Waste Collected by Recycled Company	Reused in the Contract	Reused in other Projects	Disposed in Public Fill	Disposed in Sorting Facilities	Metals (steel bar / metal strip) (1)	Metals (aluminum can) (1)	Paper / cardboard packaging (1)	Plastics	Chemical waste (wasted lubricant oil/oil container)	Chemical waste (wasted lubricant oil/oil container)	Other, e.g. general refuse
	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000L)	(in '000kg)	(in '000kg)
Oct 2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov 2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.21	0.00	0.00	0.00	0.00	0.00	0.00
Jan 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mar 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.49
Apr 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.42	4.85
May 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.61
Jun 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jul 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sep 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.84
Oct 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.93
Nov 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jan 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	46.25
Feb 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.45
Mar 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.86
Apr 2022	0.00	0.00	15076.75	0.00	0.00	0.00	0.00	10.27	0.00	0.00	0.000	0.00	0.00	0.00	43.60
May 2022	0.00	0.00	29148.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	54.64
Jun 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	11.79
Jul 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.04	0.00	0.00	0.000	0.00	0.00	0.00	35.90
Aug 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	41.91
Sep 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	0.00	51.26
Total	0.00	0.00	44225.70	0.00	0.00	0.00	0.00	34.31	4.21	0.00	0.00	0.00	0.60	0.42	426.38

Total Inert C&D Waste Materials		Non-inert C&D Materials						
Generated	C&D Materials Recycled	C&D Waste Disposed of at Landfill	Chemical Waste					
44260.01 tonnes	4.21 tonnes	426.38 tonnes	0.42 tonnes					

Where (A) Inert C&D materials include bricks, concrete, building debris, rubble and excavated spoil. In total, 4260.01 tonnes of inert C&D material were generated from the Project, of which 44225.70 tonnes were reused in this and other contracts, and the remaining 10.27 tonnes were disposed as public fill to Fill Banks / Sorting Facilities.

(b) Non-inert C&D materials (construction wastes) include metals, paper / cardboard packaging waste, plastics and other wastes such as general refuse.

Metals generated from the Project were grouped into construction wastes as the materials were not disposed of with others at the public fill.

(c)	0	kg of metals,	0	kg of papers/ cardboard packing and	 0	kg of plastics were sent to recycler
	for recycling	g during the repo	rting pe	eriod.		

 $\textbf{(d)} \ \ Construction \ wastes \ other \ than \ metals, \ paper/cardboard \ packaging, \ plastics \ and \ chemicals \ were \ disposed \ of \ at \ Landfill.$

Notes: (1) metal, paper & plastic were collected by recycler

- (2) The performance target of waste recycling are specified in the Contract.
- (3) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- (4) Plastics refer to plastic bottles/ containers, plastic/ foam from packaging material.
- (5) Broken concrete for recycling into aggregates.

Monthly Waste Flow Table for Septemeber 2022
Project: LAMMA POWER STATION EXTENSION – Unit 12 Complete Erection, Inspection, Testing & Commissioning of Power Block Facilities

Contractor: Taihei Dengyo Kaisha, Ltd.

Record by: Stephen Sin

Year of Record: 2021, 2022

MM.YYYY	1	Actua	I Ouantities	of Inert C&F	Materials G	enerated M	lonthly.		Actual Quantities of Non-inert C&D Materials Generated Monthly					
	Exc	Excavated Materials				xcavated M			The second secon					
	Disposed in Public Fill	Disposed in Sorting Facilities	Others (e.g Reused in the Contract / Other Projects)	Broken Concrete or Construction Waste Collected by Recycled Company	Reused in the Contract	Reused in other Projects	Disposed in Public Fill	Disposed in Sorting Facilities	Metals (steel bar / metal strip) (1)	Metals (aluminum can) (1)	Paper / cardboard packaging (1)	Plastics	Chemical waste (wasted lubricant oil/oil container)	Other, e.g. general refuse
	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in L)	(in '000kg)
Nov 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jan 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.36
Feb 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.29
Mar 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.59
Apr 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.42
May 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.93
Jun 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.60
Jul 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.57
Aug 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.40
Sep 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.96
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	147.12

Total Inert C&D Waste Materials		Non-inert C&D Materials						
Generated	C&D Materials Recycled	C&D Waste Disposed of at Landfill	Chemical Waste					
0.00 tonnes	0.00 toppes	147 12 tonnes	0 Liters					

Where	(A)	Inert C&D materials include bricks, concrete, building debris, rubble and excavated spoil. In total, 0.00 tonnes of inert C&D m									
		were generated from the Project, of which 0 tonnes were reused in this and other contracts, and the remaining									
		0.00 tonnes were disposed in Public Fill and Sorting Facilities.									
	(b)	Non-inert C&D materials (construction wastes) include metals, paper / cardboard packaging waste, plastics and other wastes such as general refuse.									
		Metals generated from the Project were grouped into construction wastes as the materials were not disposed of with others at the public fill.									
	(c)	0 kg of metals, 0 kg of papers/ cardboard packing and 0 kg of plastics were sent to recyclers									
		for recycling during the reporting period.									
	(d)	Construction wastes other than metals, paper/cardboard packaging, plastics and chemicals were disposed of at Landfill.									
Notes:		(1) metal, paper & plastic were collected by recycler									
		(2) The performance target of waste recycling are specified in the Contractt.									
		(3) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.									
		(4) Plastics refer to plastic bottles/ containers, plastic/ foam from packaging material.									
		(5) Broken concrete for recycling into aggregates.									
		(6) Disposal of inert waste to public fill or sorting facilities will NOT be considered as recycled waste.									

Appendix K