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

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

January 2023

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

港燈
HK Electric

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 (January 2023)
Date	14 February 2023
Certified by	(Mr. CHAN Hon Yeung, Environmental Team Leader)
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EXECUTIVE SUMMARY

This is the 153rd 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 January 2023.

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 gas-fired 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	External works of Main Station Building, construction of No. 5 chimney flue, 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 construction of external wall of intake chamber and installation of pre-cast unit 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

Independent Environmental Checker (IEC) conducted a site inspection on 13/1/2023. The site conditions were generally satisfactory.

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	Permit No.	Valid Period		Issued To	Date of Issuance
		From	To		
Varied Environmental Permit	EP-071/2000/D	28/09/20	-	HK Electric	28/09/20
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
Construction Noise Permit	GW-RS1163-22	08/01/23	06/07/23	Contractor	04/01/23
Construction Noise Permit	GW-RS0027-23	28/01/23	27/07/23	Contractor	20/01/23
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 January 2023.

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, external works of Main Station Building, construction of No.5 chimney flue, 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, construction of external wall of intake chamber and installation of pre-cast unit 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 Civil and Building Works		
1.	External works of Main Station Building Construction of No.5 Chimney Flue Construction of L12 GRS <u>ACB</u> 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.	<u>Cable Bridge (North & South):</u>	**Air** – All regulated machine attached with valid

Item	Construction Activities	Environmental Mitigation Measures
	Construction of cable trench and installation of precast parapet <u>Shunt Reactor Compound Extension</u> Construction of superstructure <u>No. 5 C.W. Intake</u> Construction of external wall of intake chamber of installation of pre-cast unit	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 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 projects for reuse. – Scrape metal will be recycled. **Wastewater** - Wastewater would be treated in desilting tanks or wastewater treatment facility before discharge.
Unit L12 Mechanical Erection		
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 Electrical, Instrumentation & 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.

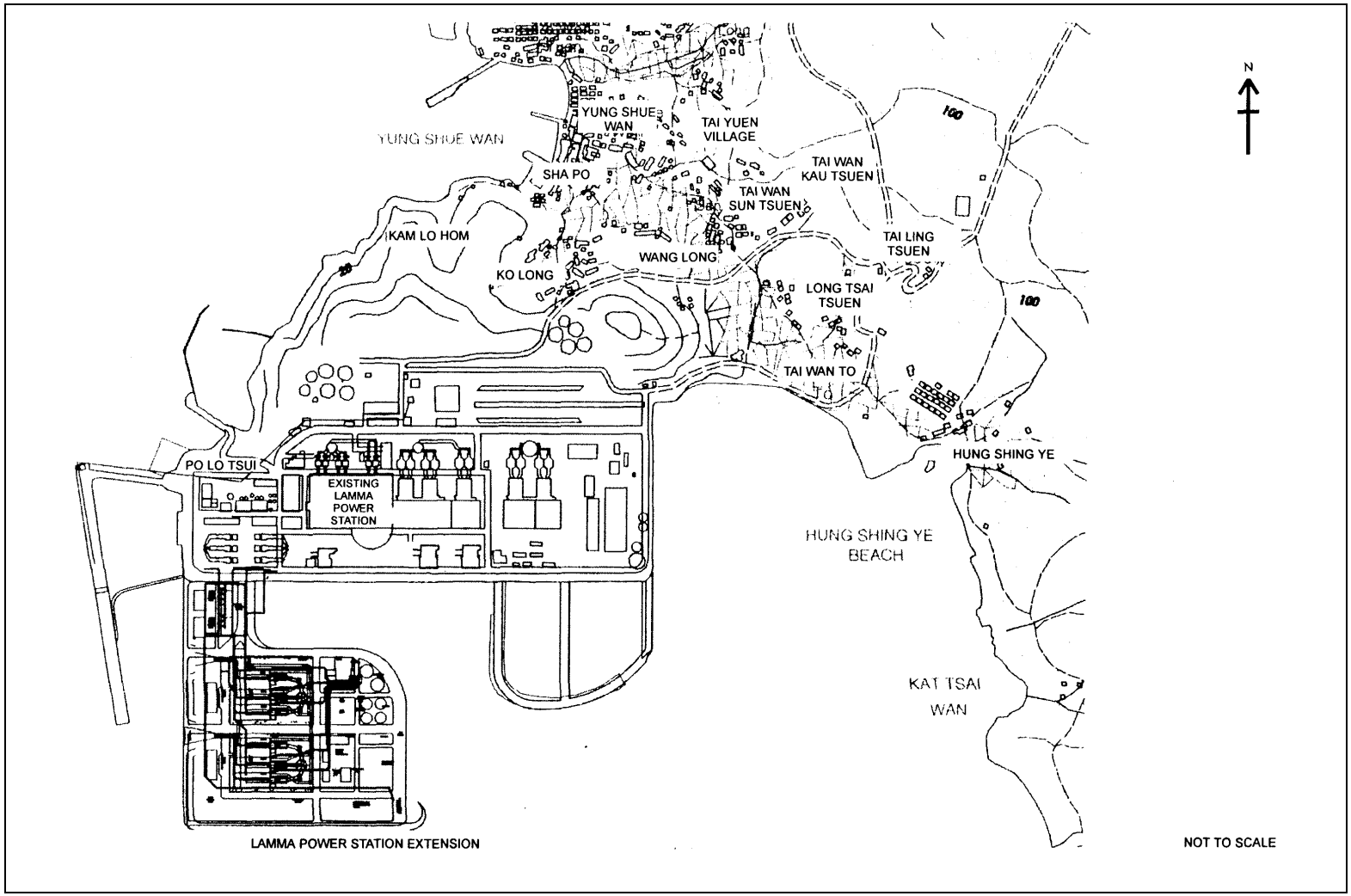


Figure 1.1 Layout of Work Site

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
	24-hour TSP	24	Once every 6 days
AM2	1-hour TSP	1	3 hourly samples every 6 days
	24-hour TSP	24	Once every 6 days
AM3	1-hour TSP	1	3 hourly samples every 6 days
	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;
    - Frequency of the tapered element;
    - Main flow;
    - 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.

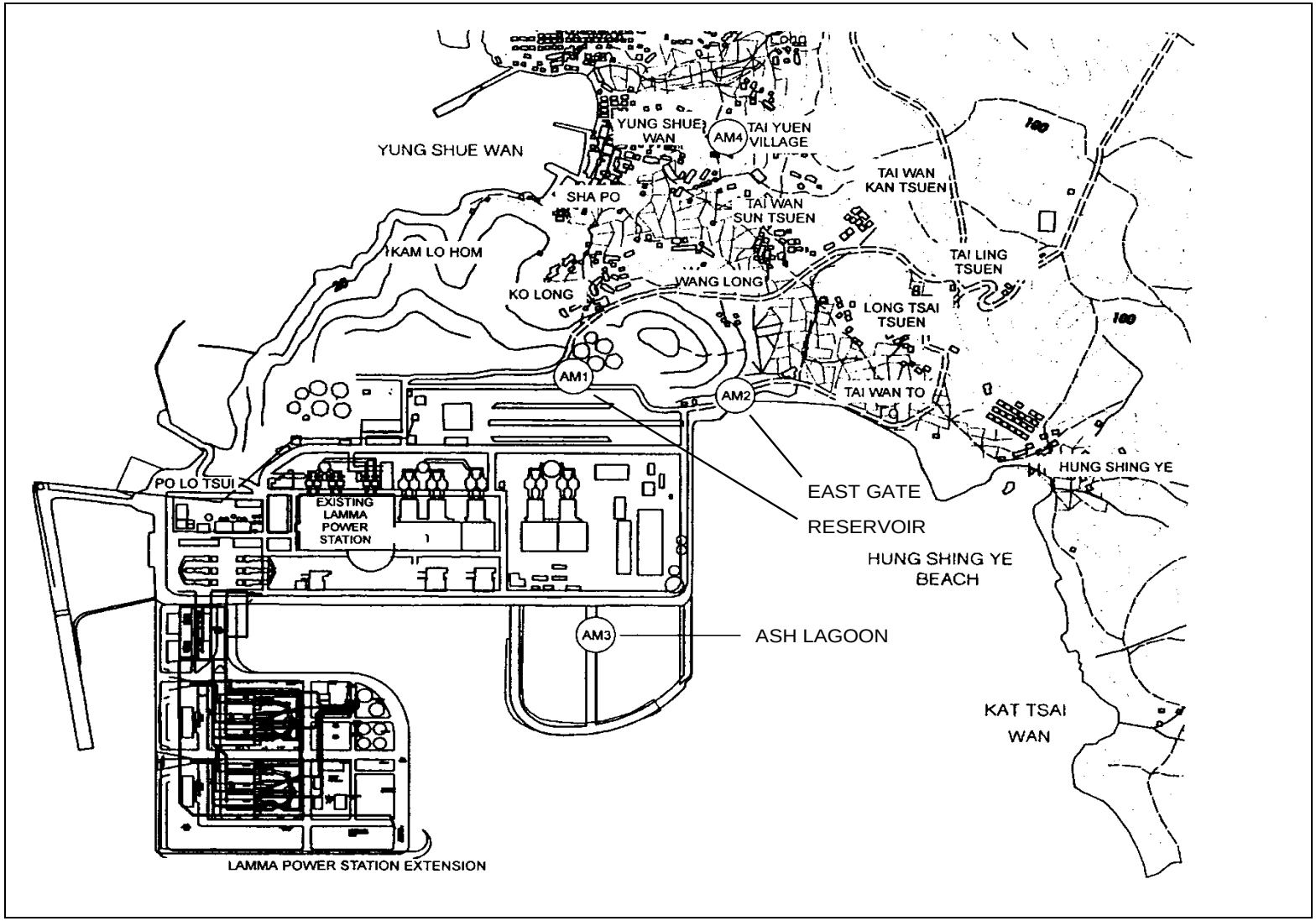


Figure 2.1 Location of Air Quality Monitoring Stations

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

Ash Lagoon Ching Lam	Day-time: 0700-1900 hrs on normal weekdays Evening-time & holidays: 0700-2300 hrs on holidays; and 1900-2300 hrs on all other days Night-time: 2300-0700 hrs of next day	Day-time: 30 minutes Evening-time & holidays: 5 minutes Night-time: 5 minutes	30-min L_{Aeq} 5-min L_{Aeq} 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 Ching Lam and Ash Lagoon noise monitoring stations were carried out in September and November 2022 respectively. The next calibrations for the two corresponding noise monitoring stations were scheduled in March and May 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.

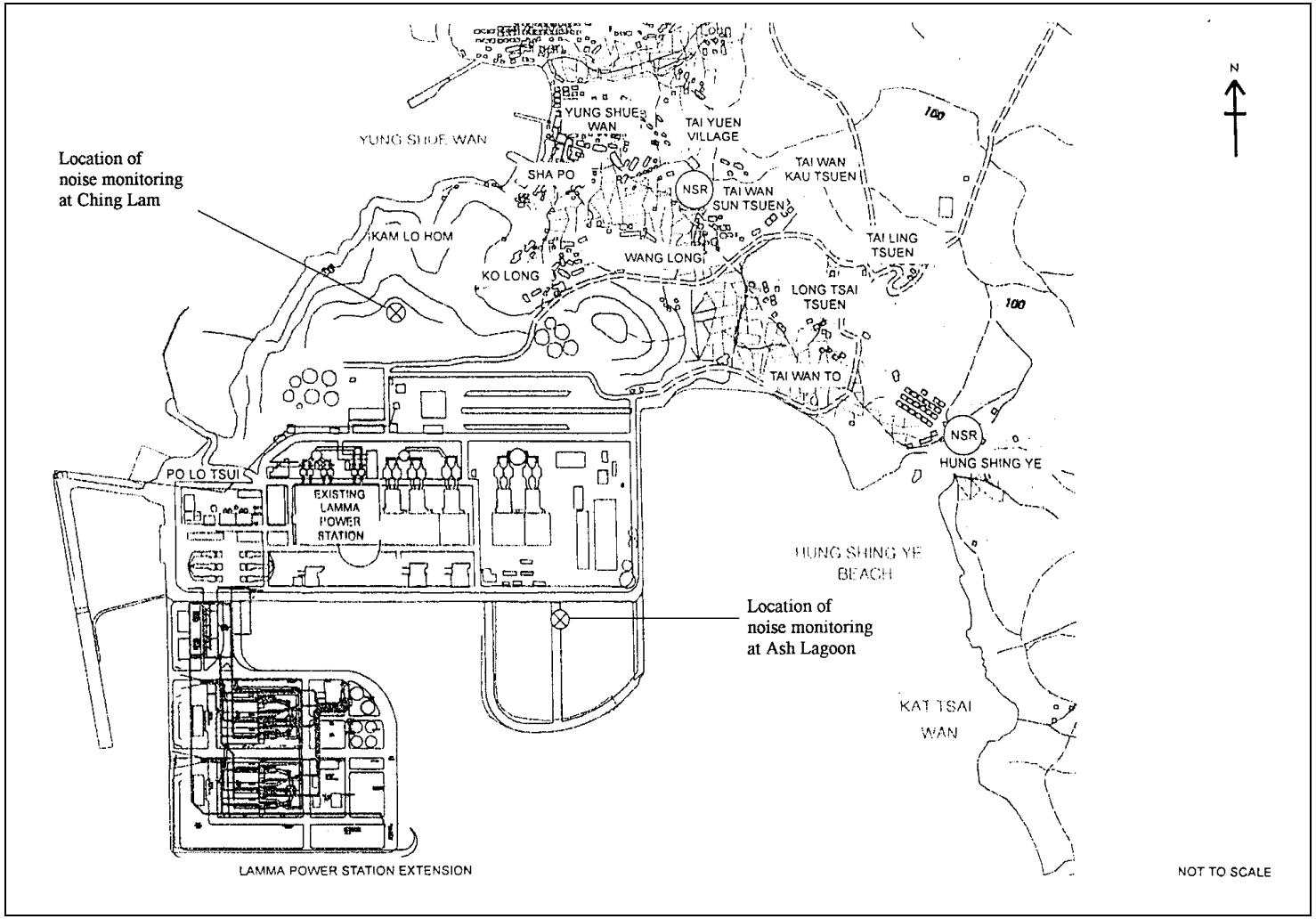


Figure 3.1 Location of Noise Monitoring Stations

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	No. of Exceedances In		Event/Action Plan Implementation Status and Results
			Action Level	Limit Level	
Air					
1	Ambient TSP (24-hour)	01/01/2023-31/01/2023	0	0	
2	Ambient TSP (1-hour)	01/01/2023-31/01/2023	0	0	
Noise					
1	Noise level at the critical NSR's predicted by the noise alarm monitoring system	01/01/2023-31/01/2023	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 January 2023 are shown in Table 4.2.

Table 4.2 Estimated Amounts of Waste in January 2023

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

0 Tonnes	10.57 Tonnes	63.9 Tonnes	0 Litres

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

4.4 Site Environmental Audit

Independent Environmental Checker (IEC) conducted a site inspection on 13/1/2023. The site conditions were generally satisfactory.

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-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
Construction Noise Permit	GW-RS1163-22	08/01/23	06/07/23	Construction site of Unit L12. Operation of PME during restricted hours	Valid
Construction Noise Permit	GW-RS0027-23	28/01/23	27/07/23	Civil and Building Works for Unit L12. Operation of PME during restricted hours	Valid

Description	Permit No.	Valid Period		Highlights	Status
		From	To		
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
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 November 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 January 2023, no complaint in relation to the environmental impact of the construction activities was received.

Table 4.4 Environmental Complaints Received in January 2023

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.

5.3 Construction Program for the Next 3 Months

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.

Appendix A Organization Chart

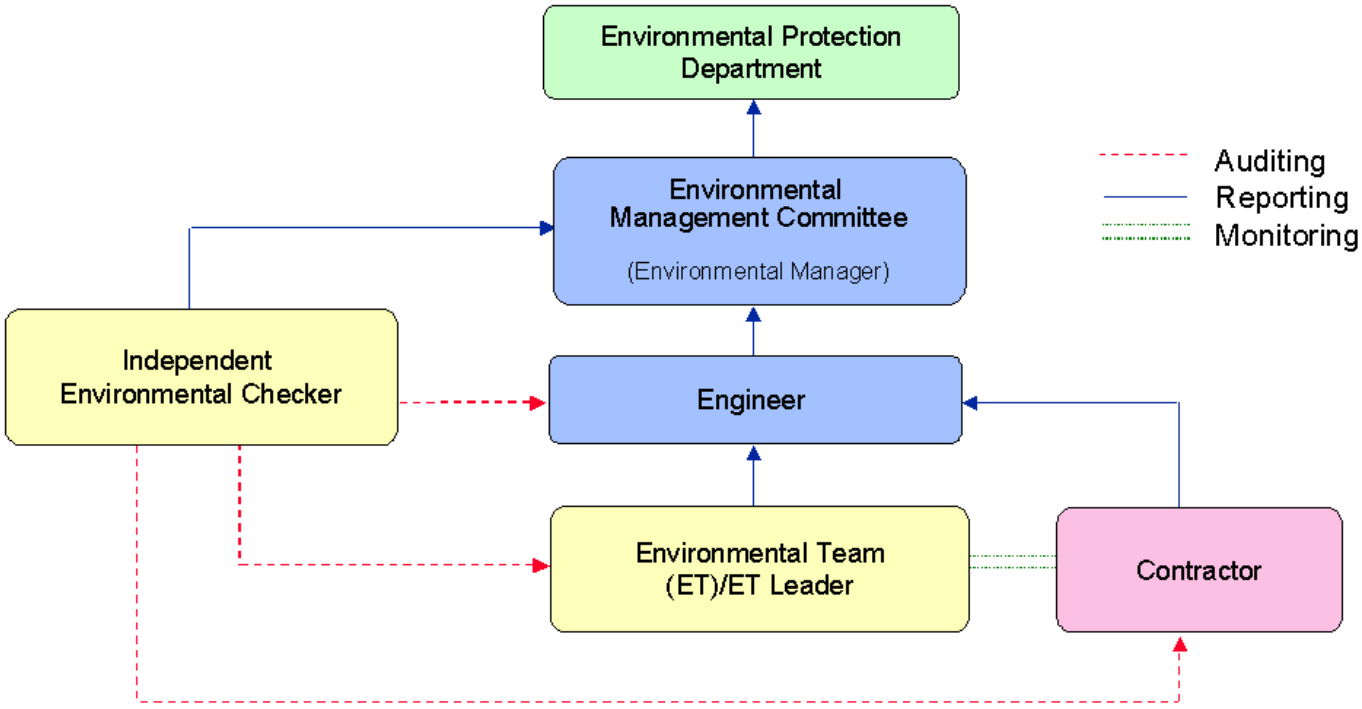


Figure A.1 Organisation of EM&A Programme at Construction Phase

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, $\mu g/m^3$	Limit Level, $\mu g/m^3$
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	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 $L_{Aeq,5\ min}$
Manual noise monitoring at the nearest Pak Kok Tsui residences to cable landing points N4 and N5		
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 (January 2023 to April 2023)

24hr TSP Monitoring	1hr TSP Monitoring
2/January/2023	2/January/2023 1500hr to 1800hr
8/January/2023	8/January/2023 1500hr to 1800hr
14/January/2023	14/January/2023 1500hr to 1800hr
20/January/2023	20/January/2023 1500hr to 1800hr
26/January/2023	26/January/2023 1500hr to 1800hr
1/February/2023	1/February/2023 1500hr to 1800hr
7/February/2023	7/February/2023 1500hr to 1800hr
13/February/2023	13/February/2023 1500hr to 1800hr
19/February/2023	19/February/2023 1500hr to 1800hr
25/February/2023	25/February/2023 1500hr to 1800hr
3/March/2023	3/March/2023 1500hr to 1800hr
9/March/2023	9/March/2023 1500hr to 1800hr
15/March/2023	15/March/2023 1500hr to 1800hr
21/March/2023	21/March/2023 1500hr to 1800hr
27/March/2023	27/March/2023 1500hr to 1800hr
2/April/2023	2/April/2023 1500hr to 1800hr
8/April/2023	8/April/2023 1500hr to 1800hr
14/April/2023	14/April/2023 1500hr to 1800hr
20/April/2023	20/April/2023 1500hr to 1800hr
26/April/2023	26/April/2023 1500hr to 1800hr

APPENDIX D AIR QUALITY MONITORING RESULTS

Site: Lamma Power Station Extension

Month: January 2023

24 hour TSP Measurement:-

Date	TSP concentration (μg/m³)				Weather Information (From Hong Kong Observatory)		
	Reservoir (AM1)	East Gate (AM2)	Ash Lagoon (AM3)	Tai Yuen Village (AM4)	Mean Wind Speed (km/hr)	Prevailing Wind Dir. (°)	Mean R.H. (%)
2/1/2023	57	46	39	32	21.8	20	65
8/1/2023	48	29	30	43	35.0	70	57
14/1/2023	17	24	5	17	9.4	250	90
20/1/2023	46	48	44	47	20.6	20	62
26/1/2023	49	27	40	38	26.8	60	66

1 hour TSP Measurement:-

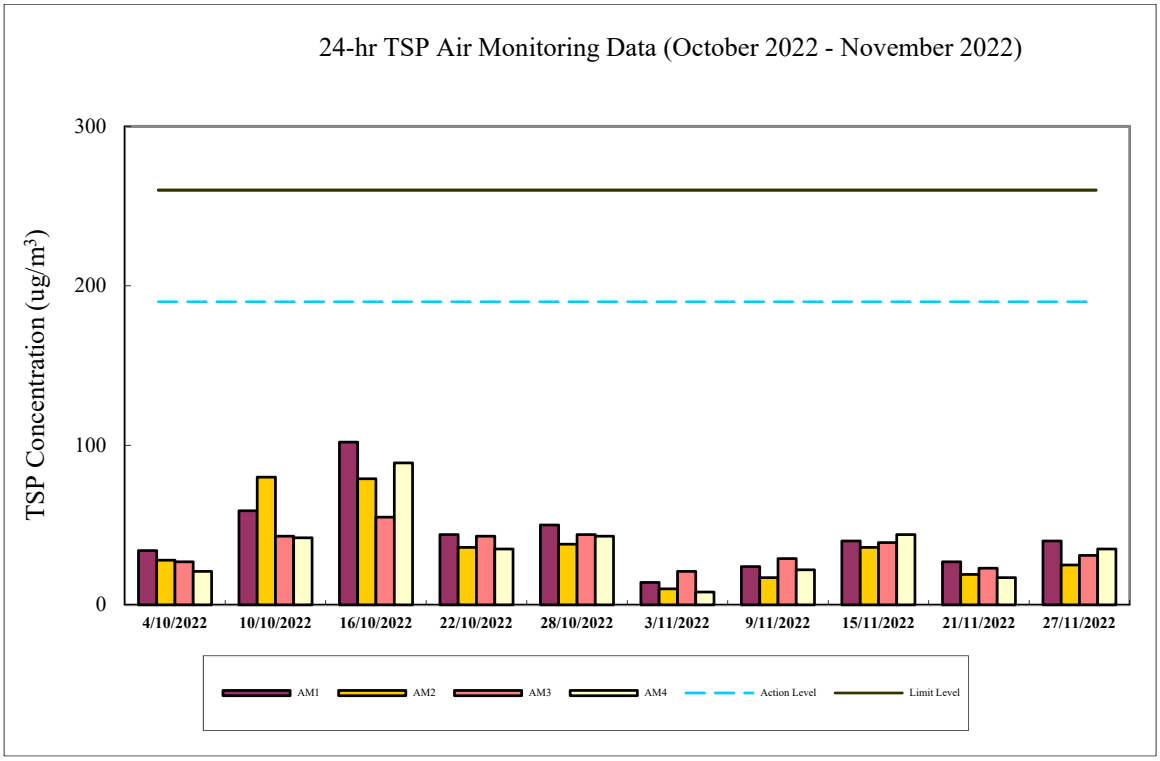
Date	Time	TSP concentration (μg/m³)		
		Reservoir (AM1)	East Gate (AM2)	Ash Lagoon (AM3)
2/1/2023	15:00 - 15:59	63	109	69
	16:00 - 16:59	87	128	85
	17:00 - 17:59	108	77	68
8/1/2023	15:00 - 15:59	38	38	41
	16:00 - 16:59	53	47	45
	17:00 - 17:59	55	42	41
14/1/2023	15:00 - 15:59	22	17	3
	16:00 - 16:59	35	15	6
	17:00 - 17:59	14	28	0
20/1/2023	15:00 - 15:59	40	41	42
	16:00 - 16:59	73	46	40
	17:00 - 17:59	43	64	37
26/1/2023	15:00 - 15:59	37	14	36
	16:00 - 16:59	39	64	38
	17:00 - 17:59	47	45	35

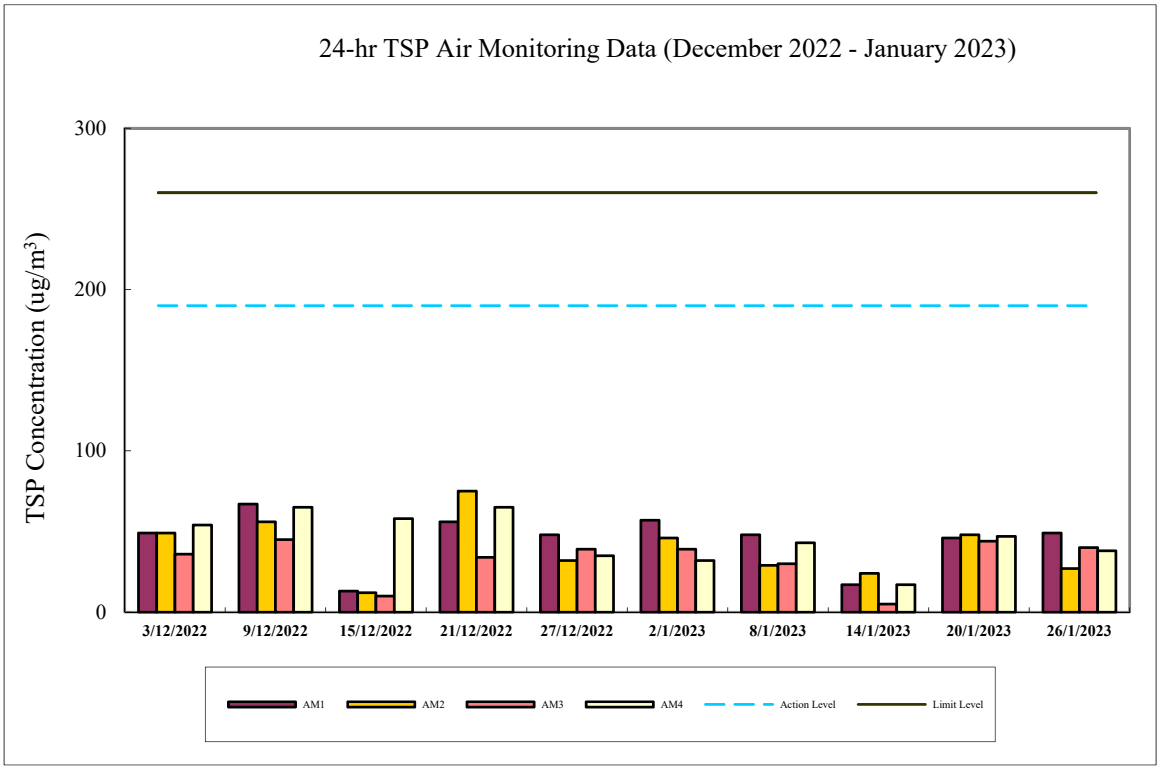
	1-hr TSP (μg/m³)	24-hr TSP (μg/m³)
Action Level	340	190
Limit Level	500	260

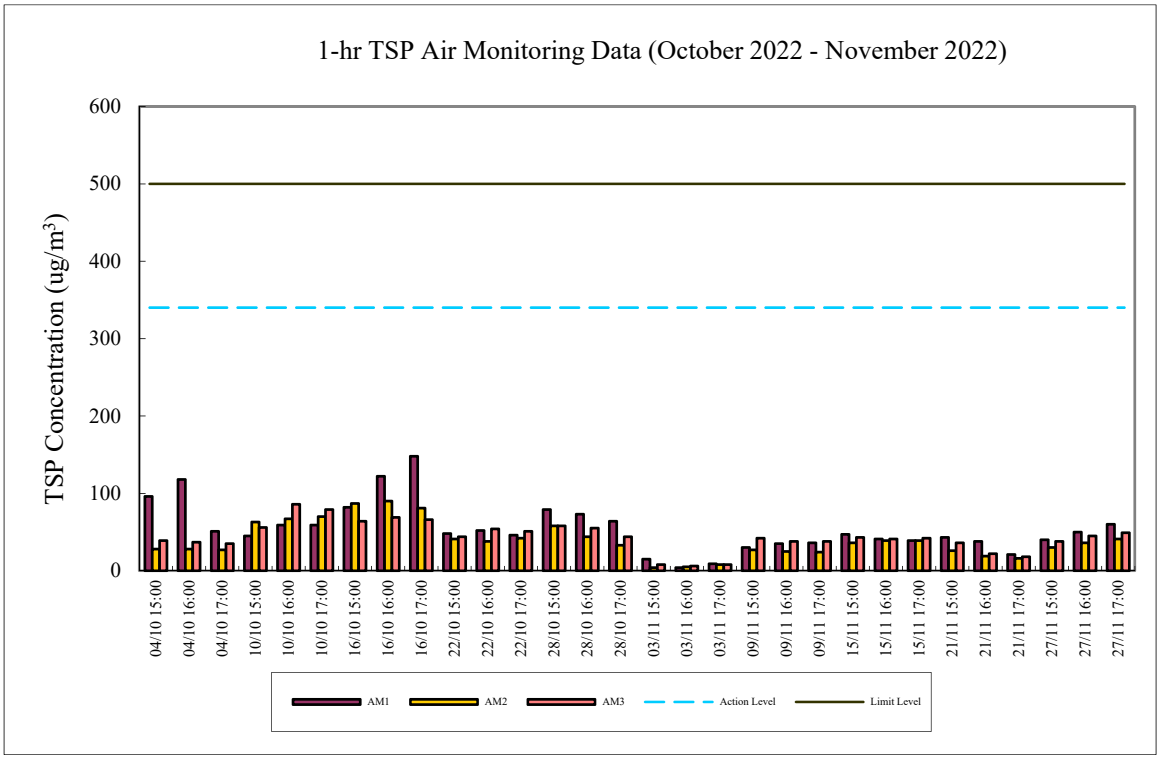
Calibration: Calibration details are shown in appendix F.

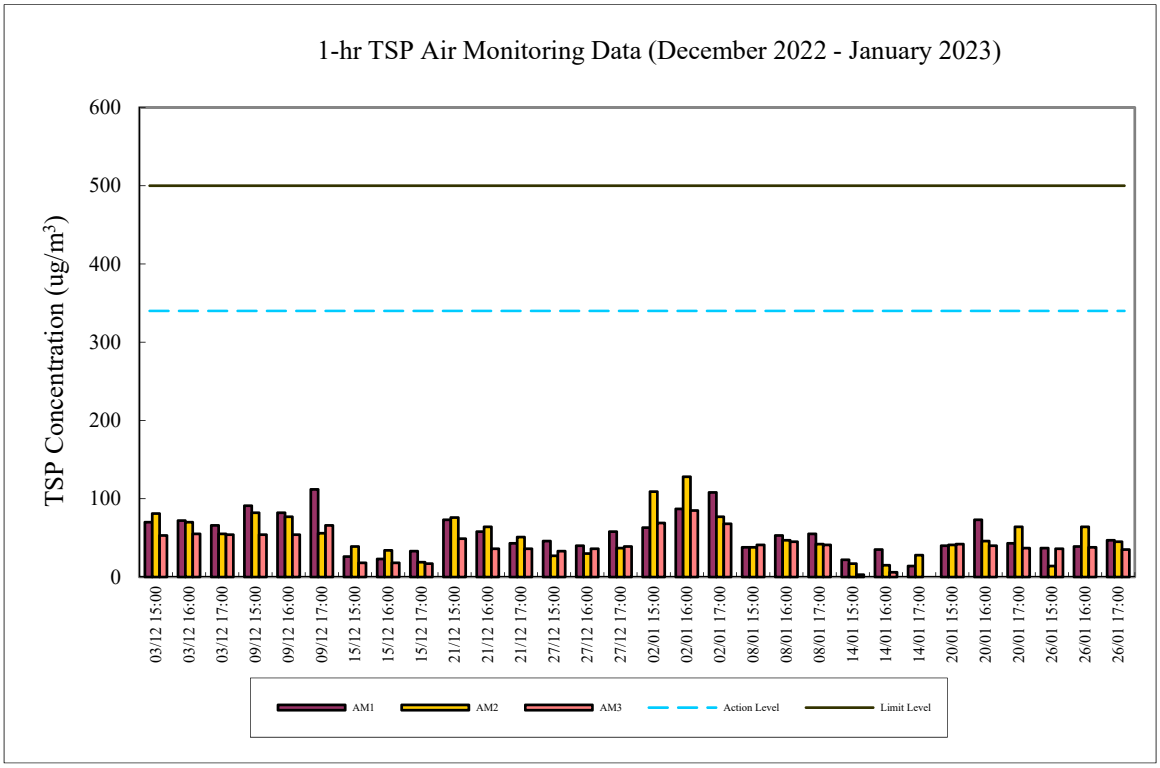
Equipment used:

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






1-hr TSP Air Monitoring Data (October 2022 - November 2022)
TSP Concentration (ug/m3)
600
500
400
300
200
100
0
04/10 15:00
04/10 16:00
04/10 17:00
10/10 15:00
10/10 16:00
10/10 17:00
16/10 15:00
16/10 16:00
16/10 17:00
22/10 15:00
22/10 16:00
22/10 17:00
28/10 15:00
28/10 16:00
28/10 17:00
03/11 15:00
03/11 16:00
03/11 17:00
09/11 15:00
09/11 16:00
09/11 17:00
15/11 15:00
15/11 16:00
15/11 17:00
21/11 15:00
21/11 16:00
21/11 17:00
27/11 15:00
27/11 16:00
27/11 17:00
AM1
AM2
AM3
Action Level
Limit Level


1-hr TSP Air Monitoring Data (December 2022 - January 2023)
TSP Concentration (ug/m3)
600
500
400
300
200
100
0
03/12 15:00
03/12 16:00
03/12 17:00
09/12 15:00
09/12 16:00
09/12 17:00
15/12 15:00
15/12 16:00
15/12 17:00
21/12 15:00
21/12 16:00
21/12 17:00
27/12 15:00
27/12 16:00
27/12 17:00
02/01 15:00
02/01 16:00
02/01 17:00
08/01 15:00
08/01 16:00
08/01 17:00
14/01 15:00
14/01 16:00
14/01 17:00
20/01 15:00
20/01 16:00
20/01 17:00
26/01 15:00
26/01 16:00
26/01 17:00
AM1
AM2
AM3
Action Level
Limit Level

Appendix E Continuous Noise Monitoring Results for January 2023

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 (17/10/2022)

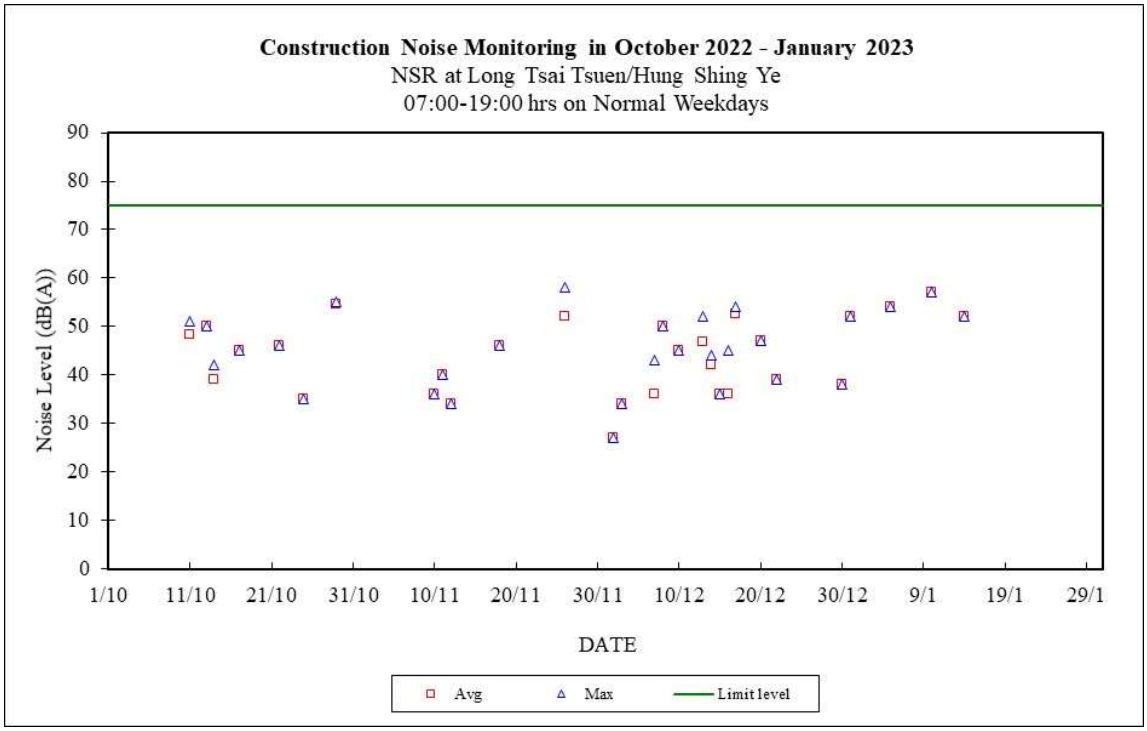
Date	Time	Calculated Noise Level at NSR at Long Tsai Tsuen/Hung Shing Ye (dB(A))		Limit Noise Level (dB(A))	Calculated Noise Level at NSR at the school within Tai Wan San Tsuen (dB(A))		Limit Noise Level (dB(A))
		Max	Avg		Max	Avg	
01/01/2023	07:00-23:00	43	36	60	48	33	60
01/01/2023	23:00-07:00	---	---	45	36	32	45
02/01/2023	07:00-23:00	---	---	60	31	31	60
02/01/2023	23:00-07:00	33	33	45	36	31	45
03/01/2023	07:00-19:00	---	---	75	56	56	70
03/01/2023	19:00-23:00	---	---	60	---	---	60
03/01/2023	23:00-07:00	42	42	45	34	30	45
04/01/2023	07:00-19:00	---	---	75	---	---	70
04/01/2023	19:00-23:00	48	41	60	38	35	60
04/01/2023	23:00-07:00	40	35	45	40	39	45
05/01/2023	07:00-19:00	54	54	75	40	40	65
05/01/2023	19:00-23:00	---	---	60	40	40	60
05/01/2023	23:00-07:00	40	37	45	42	37	45
06/01/2023	07:00-19:00	---	---	75	37	37	65
06/01/2023	19:00-23:00	25	25	60	49	44	60
06/01/2023	23:00-07:00	27	27	45	22	22	45
07/01/2023	07:00-19:00	---	---	75	54	50	70
07/01/2023	19:00-23:00	37	37	60	34	31	60
07/01/2023	23:00-07:00	43	37	45	40	32	45
08/01/2023	07:00-23:00	41	31	60	44	39	60
08/01/2023	23:00-07:00	45	41	45	---	---	45
09/01/2023	07:00-19:00	---	---	75	53	45	65
09/01/2023	19:00-23:00	24	24	60	37	30	60
09/01/2023	23:00-07:00	35	31	45	39	32	45
10/01/2023	07:00-19:00	57	57	75	52	48	65
10/01/2023	19:00-23:00	30	30	60	41	34	60
10/01/2023	23:00-07:00	44	35	45	39	32	45
11/01/2023	07:00-19:00	---	---	75	55	35	70
11/01/2023	19:00-23:00	---	---	60	34	34	60
11/01/2023	23:00-07:00	43	36	45	44	36	45
12/01/2023	07:00-19:00	---	---	75	41	38	70
12/01/2023	19:00-23:00	26	26	60	41	38	60
12/01/2023	23:00-07:00	42	36	45	40	36	45
13/01/2023	07:00-19:00	---	---	75	36	31	70
13/01/2023	19:00-23:00	---	---	60	39	30	60
13/01/2023	23:00-07:00	---	---	45	42	31	45

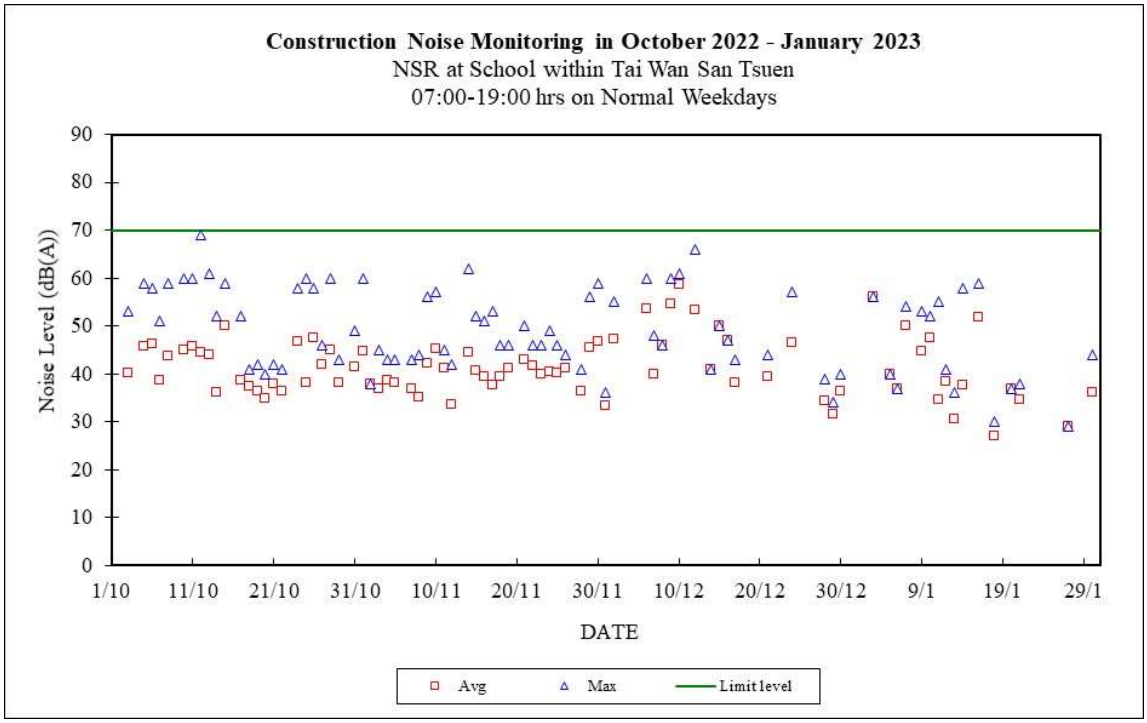
14/01/2023	07:00-19:00	52	52	75	58	38	70
14/01/2023	19:00-23:00	24	24	60	39	33	60
14/01/2023	23:00-07:00	32	32	45	42	31	45
15/01/2023	07:00-23:00	41	41	60	60	45	60
15/01/2023	23:00-07:00	45	40	45	40	34	45
16/01/2023	07:00-19:00	---	---	75	59	52	70
16/01/2023	19:00-23:00	24	24	60	27	27	60
16/01/2023	23:00-07:00	45	42	45	36	32	45
17/01/2023	07:00-19:00	---	---	75	---	---	70
17/01/2023	19:00-23:00	38	29	60	36	35	60
17/01/2023	23:00-07:00	45	41	45	31	27	45
18/01/2023	07:00-19:00	---	---	75	30	27	70
18/01/2023	19:00-23:00	35	35	60	---	---	60
18/01/2023	23:00-07:00	45	35	45	32	32	45
19/01/2023	07:00-19:00	---	---	75	---	---	70
19/01/2023	19:00-23:00	---	---	60	---	---	60
19/01/2023	23:00-07:00	45	38	45	38	30	45
20/01/2023	07:00-19:00	---	---	75	37	37	70
20/01/2023	19:00-23:00	---	---	60	27	27	60
20/01/2023	23:00-07:00	24	24	45	39	35	45
21/01/2023	07:00-19:00	---	---	75	38	35	70
21/01/2023	19:00-23:00	12	12	60	40	33	60
21/01/2023	23:00-07:00	---	---	45	45	33	45
22/01/2023	07:00-23:00	39	39	60	39	33	60
22/01/2023	23:00-07:00	34	34	45	29	29	45
23/01/2023	07:00-23:00	---	---	60	---	---	60
23/01/2023	23:00-07:00	40	37	45	43	34	45
24/01/2023	07:00-23:00	39	39	60	37	35	60
24/01/2023	23:00-07:00	37	37	45	27	27	45
25/01/2023	07:00-23:00	---	---	60	36	30	60
25/01/2023	23:00-07:00	42	35	45	44	44	45
26/01/2023	07:00-19:00	---	---	75	---	---	70
26/01/2023	19:00-23:00	35	35	60	---	---	60
26/01/2023	23:00-07:00	41	39	45	40	36	45
27/01/2023	07:00-19:00	---	---	75	29	29	70
27/01/2023	19:00-23:00	---	---	60	---	---	60
27/01/2023	23:00-07:00	45	42	45	38	30	45
28/01/2023	07:00-19:00	---	---	75	---	---	70
28/01/2023	19:00-23:00	---	---	60	---	---	60
28/01/2023	23:00-07:00	---	---	45	---	---	45
29/01/2023	07:00-23:00	44	42	60	50	45	60
29/01/2023	23:00-07:00	45	41	45	---	---	45
30/01/2023	07:00-19:00	---	---	75	44	36	70
30/01/2023	19:00-23:00	---	---	60	---	---	60
30/01/2023	23:00-07:00	44	37	45	38	32	45
31/01/2023	07:00-19:00	---	---	75	---	---	70
31/01/2023	19:00-23:00	---	---	60	49	37	60
31/01/2023	23:00-07:00	41	35	45	36	28	45

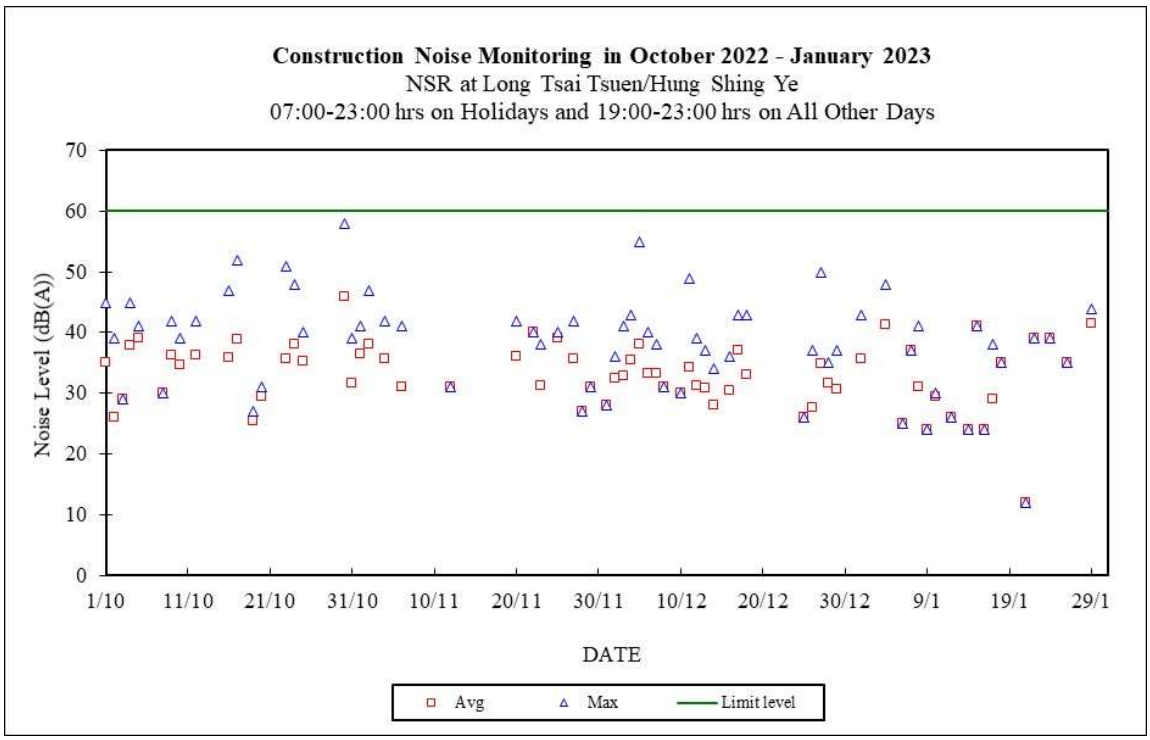
Note:

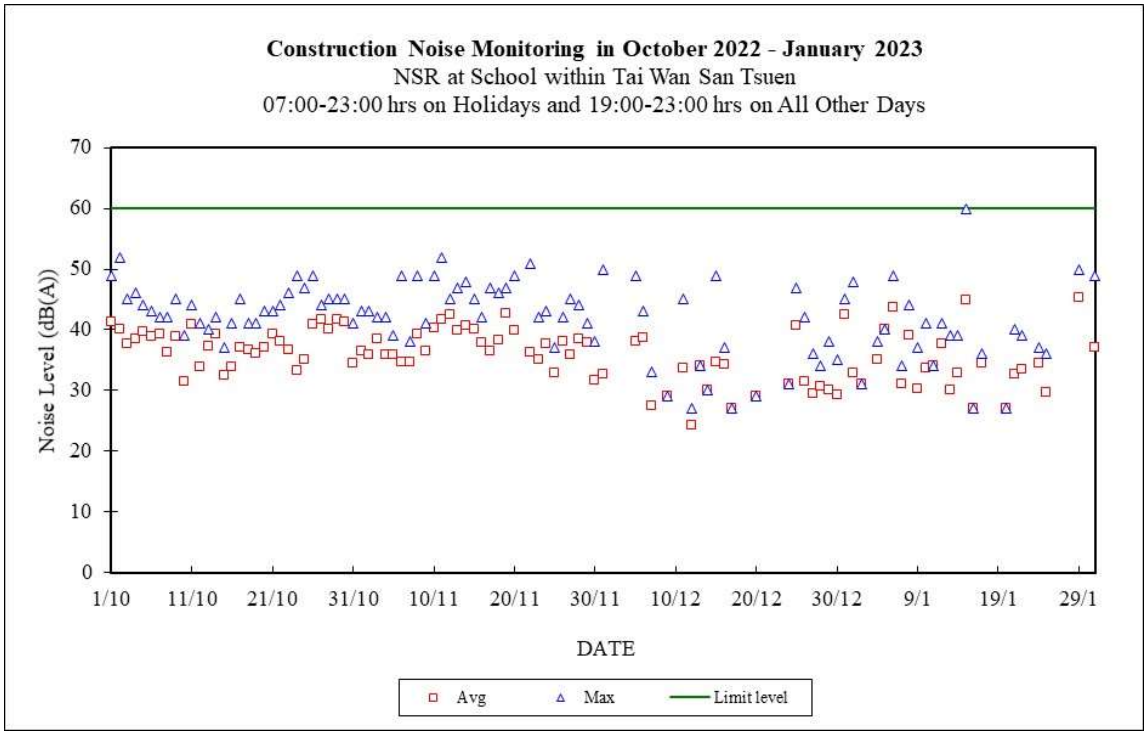
a. "---" represents the measured noise monitoring data lower than the established notional background level/discarded under strong wind.

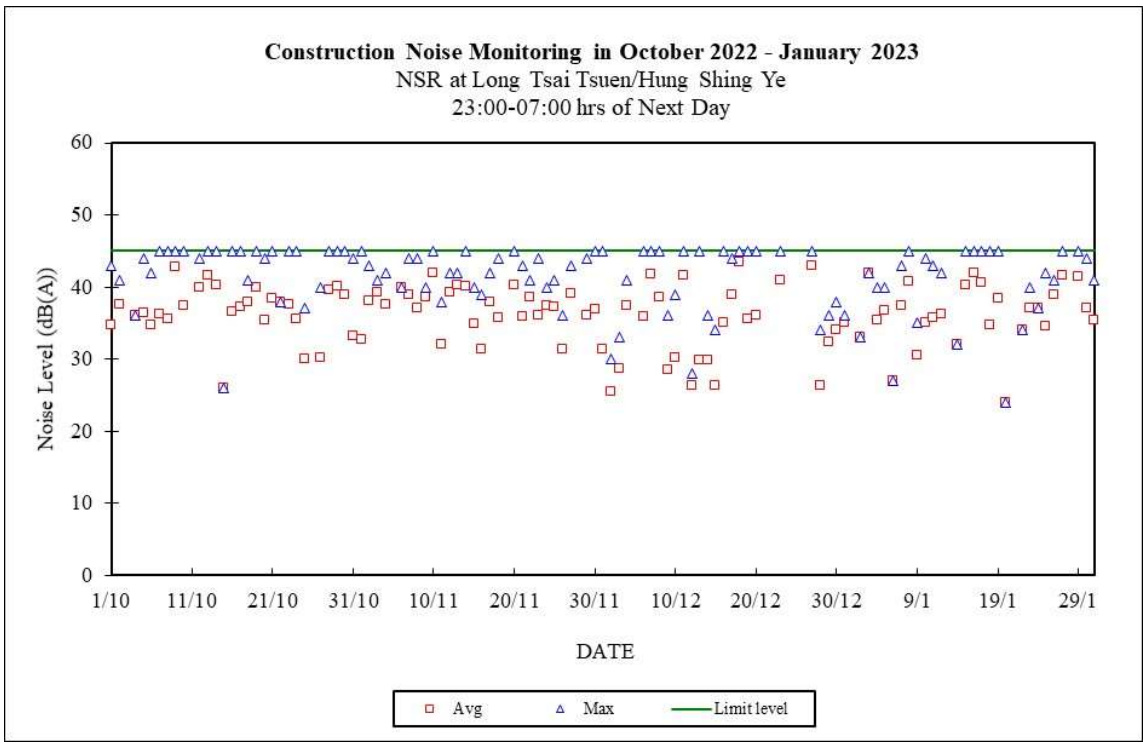
b. Continuous noise monitoring was also carried out at holidays & evening-time (07:00-23:00 hrs on holidays and 19:00-23:00 hrs on all other days) and night-time (23:00-07:00 hrs of next day).

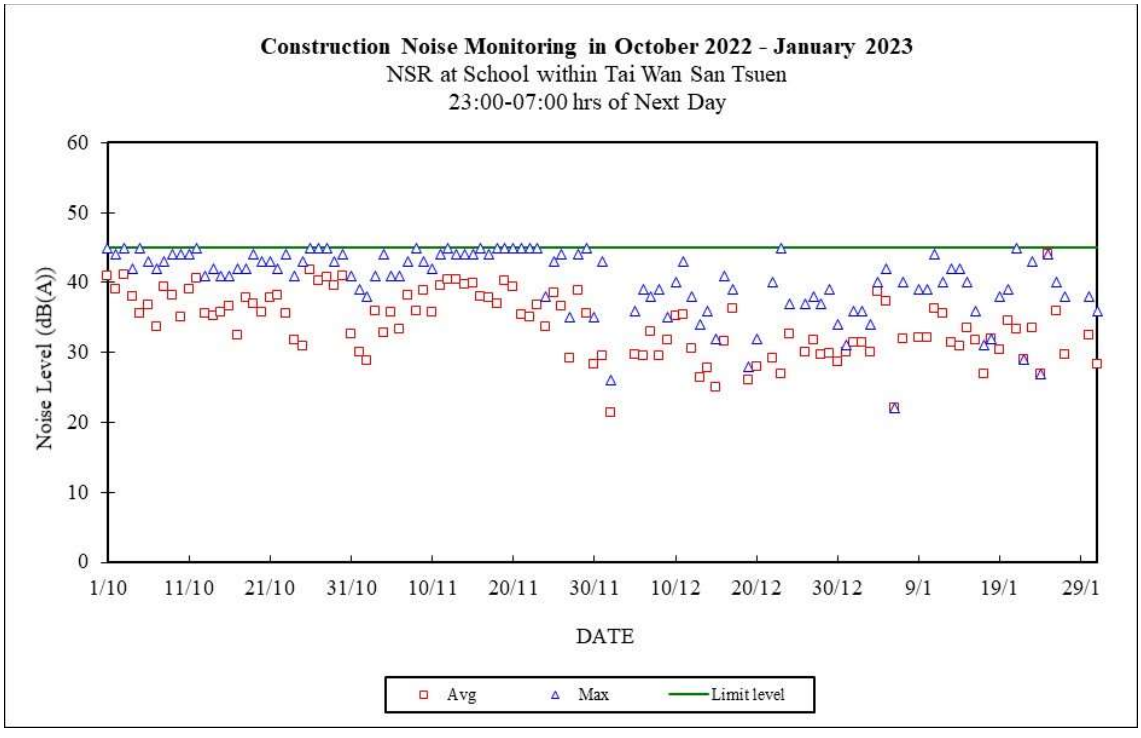

Construction Noise Monitoring in October 2022 - January 2023
NSR at Long Tsai Tsuen/Hung Shing Ye
07:00-19:00 hrs on Normal Weekdays
Noise Level (dB(A))
90
80
70
60
50
40
30
20
10
0
1/10
11/10
21/10
31/10
10/11
20/11
30/11
10/12
20/12
30/12
9/1
19/1
29/1
DATE
Avg
Max
Limit level


Construction Noise Monitoring in October 2022 - January 2023
NSR at School within Tai Wan San Tsuen
07:00-19:00 hrs on Normal Weekdays
Noise Level (dB(A))
90
80
70
60
50
40
30
20
10
0
1/10
11/10
21/10
31/10
10/11
20/11
30/11
10/12
20/12
30/12
9/1
19/1
29/1
DATE
Avg
Max
Limit level


Construction Noise Monitoring in October 2022 - January 2023
NSR at Long Tsai Tsuen/Hung Shing Ye
07:00-23:00 hrs on Holidays and 19:00-23:00 hrs on All Other Days
Noise Level (dB(A))
70
60
50
40
30
20
10
0
1/10
11/10
21/10
31/10
10/11
20/11
30/11
10/12
20/12
30/12
9/1
19/1
29/1
DATE
Avg
Max
Limit level


Construction Noise Monitoring in October 2022 - January 2023
NSR at School within Tai Wan San Tsuen
07:00-23:00 hrs on Holidays and 19:00-23:00 hrs on All Other Days
Noise Level (dB(A))
70
60
50
40
30
20
10
0
1/10
11/10
21/10
31/10
10/11
20/11
30/11
10/12
20/12
30/12
9/1
19/1
29/1
DATE
Avg
Max
Limit level


Construction Noise Monitoring in October 2022 - January 2023
NSR at Long Tsai Tsuen/Hung Shing Ye
23:00-07:00 hrs of Next Day
Noise Level (dB(A))
60
50
40
30
20
10
0
1/10
11/10
21/10
31/10
10/11
20/11
30/11
10/12
20/12
30/12
9/1
19/1
29/1
DATE
Avg
Max
Limit level


Construction Noise Monitoring in October 2022 - January 2023
NSR at School within Tai Wan San Tsuen
23:00-07:00 hrs of Next Day
Noise Level (dB(A))
60
50
40
30
20
10
0
1/10
11/10
21/10
31/10
10/11
20/11
30/11
10/12
20/12
30/12
9/1
19/1
29/1
DATE
Avg
Max
Limit level

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: January Year: 2023

Reservoir (AM1)				
Date	Frequency (Hz) (240 - 275)	Operation Mode (Mode 4)	Main Flow (l/min) (2.70 - 3.30)	Bypass Flow (l/min) (12.30 - 15.04)
3/1/2023	270.713	4	3.02	10.31
9/1/2023	270.022	4	2.97	10.31
15/1/2023	269.704	4	2.96	10.31
21/1/2023	269.127	4	3.01	10.31
27/1/2023	268.486	4	3.03	10.31

East Gate (AM2)				
Date	Frequency (Hz) (240 - 275)	Operation Mode (Mode 4)	Main Flow (l/min) (2.70 - 3.30)	Bypass Flow (l/min) (12.30 - 15.04)
3/1/2023	263.658	4	2.08	14.42
9/1/2023	263.268	4	2.09	14.10
15/1/2023	263.500	4	2.36	14.19
21/1/2023	262.956	4	2.20	14.16
27/1/2023	262.492	4	2.16	14.28

Ash Lagoon (AM3)				
Date	Frequency (Hz) (240 - 275)	Operation Mode (Mode 4)	Main Flow (l/min) (2.70 - 3.30)	Bypass Flow (l/min) (12.30 - 15.04)
3/1/2023	256.707	4	2.20	13.68
9/1/2023	256.264	4	2.04	13.68
15/1/2023	256.037	4	1.98	13.68
21/1/2023	257.034	4	2.68	13.68
27/1/2023	256.452	4	2.30	13.68

Maintenance Record			
	Reservoir	East Gate	Ash Lagoon
TEOM Filter Exchange	✓	✓	✓
Clean TSP Inlet	✓	✓	✓
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 Village (AM4)

Date/Time	Staff Name
16/01/2023 / 10:15	WM Tam / Brian So

Equipment / Item

Equipment / Item	Serial No. / No.
MINIVOL	5580
Used filter paper no.	MS40
New filter paper no.	MS41

Type of filter: Glass-fibre

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

Before: 5.037
After: 5.037 (No Adjustment)

II. General Services

1. Clean Rotameter: Yes
2. Clean / Replace Pump Valves: No
3. Clean / Replace Pump Diaphragms: No
4. Clean Impaction Inlet: Yes
5. Replace Timer Battery Every 6 months: No
6. Replace Inlet Filter: Yes

Remarks

N/A

Conducted by: WM Tam / Brian So

Checked by: SM Hon

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

Date	Location: Ash Lagoon		Location: Ching Lam	
	Calibration Results	Deviation from Reference (dB)	Calibration Results	Deviation from Reference (dB)
01/01/2023	Passed	-0.04	Passed	0.02
02/01/2023	Passed	-0.07	Passed	0.03
03/01/2023	Passed	-0.06	Passed	0.03
04/01/2023	Passed	-0.04	Passed	0.04
05/01/2023	Passed	-0.06	Passed	0.04
06/01/2023	Passed	-0.03	Passed	0.03
07/01/2023	Passed	-0.05	Passed	0.03
08/01/2023	Passed	-0.05	Passed	0.03
09/01/2023	Passed	-0.06	Passed	0.03
10/01/2023	Passed	-0.05	Passed	0.04
11/01/2023	Passed	-0.03	Passed	0.04
12/01/2023	Passed	-0.05	Passed	0.06
13/01/2023	Passed	-0.04	Passed	0.07
14/01/2023	Passed	-0.06	Passed	0.01
15/01/2023	Passed	-0.09	Passed	-0.01
16/01/2023	Passed	-0.10	Passed	-0.01
17/01/2023	Passed	-0.09	Passed	-0.01
18/01/2023	Passed	-0.07	Passed	-0.02
19/01/2023	Passed	-0.06	Passed	-0.01
20/01/2023	Passed	-0.05	Passed	-0.01
21/01/2023	Passed	-0.05	Passed	-0.03
22/01/2023	Passed	-0.05	Passed	0.04
23/01/2023	Passed	-0.09	Passed	0.02
24/01/2023	Passed	-0.10	Passed	0.03
25/01/2023	Passed	-0.08	Passed	0.03
26/01/2023	Passed	-0.09	Passed	0.04
27/01/2023	Passed	-0.10	Passed	0.03
28/01/2023	Passed	-0.11	Passed	0.02
29/01/2023	Passed	-0.08	Passed	0.05
30/01/2023	Passed	-0.06	Passed	0.06
31/01/2023	Passed	-0.04	Passed	0.06

Remarks:

1. 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 ± 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 samples	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. Repeat measurement to confirm finding Increase monitoring frequency to daily Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented Arrange meeting with Engineer and Contractor to discuss the remedial actions to be taken If exceedance stops, discontinue additional monitoring	ET / Contractor Advise Engineer on the effectiveness of the proposed remedial measures Verify the implementation of the remedial measures	failure in writing Checking monitoring data and Contractor's working methods Notify Contractor Discuss proposed remedial actions with ET and Contractor Ensure remedial measures properly implemented If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop the portion of work until the exceedance is abated	avoid further exceedance Submit proposals for remedial actions to Engineer within 3 working days of notifications Implement the agreed proposals Resubmit proposals if problem still not under control Stop the relevant portion of works as determined by the 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 the Construction works, verbally advise the Contractor, Engineer and IEC, and inform the EPD of the exceedance, as soon as practicable.	Review Contractor's remedial actions / measures to ensure their effectiveness and advise the Engineer and ET accordingly.	Check Contractor's working methods and advise IEC and ET accordingly.	Submit proposals for remedial actions to Engineer.
			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 upon instruction from the Engineer.
	Discuss remedial actions required with Engineer.		If the exceedance continues, consider 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
	Increase manual monitoring frequency to assess efficacy of remedial measures.			

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; Discuss mitigation measure with Engineer and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level.		implemented mitigation measures.	within 3 working days and discuss with Engineer; Implement the agreed mitigation measures.
Limit level exceeded by more than one consecutive sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform Contractor, IEC and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; 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.	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 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.	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 Engineer; Implement the agreed mitigation measures.. 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

Dates of Inspection: 3/1/2023, 13/1/2023, 17/1/2023, 26/1/2023 and 31/1/2023.

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: 5/1/2023, 12/1/2023, 19/1/2023 and 26/1/2023.

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.	C
	• the load carried by vehicle shall be covered by impervious sheeting to ensure no leakage of dusty materials from the vehicle.	C
	• the heights from which fill materials are dropped shall be controlled to a practical level to minimise the fugitive dust arising from unloading.	C
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
B3	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
B6	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: ** • 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.	N/A

EM&A Log Ref.	Mitigation Measures	Implementation Status
B7	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.	C
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.	C
C3	Mitigate against night time noise from dredging equipment, with silencers or mufflers. **	N/A
	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.	C
	• Break the mass of main buildings by varying the height/division into smaller units.	C
	• Plant trees and vegetation for screening.	C
	• Adopt colour scheme to blend the buildings into the scenery.	C

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.	C
	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.	C
	• 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.	C
	• Disposal of waste at Licensed sites;	C
	• 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;	C

	• 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 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.
		C

	• Maintain records of the quantities of wastes generated and disposed off-site for each category of waste.	C
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	C
	LAND CONTAMINATION	
F1	No land Contamination mitigation measures are required during the construction phase.	N/A
	MARINE ECOLOGY	

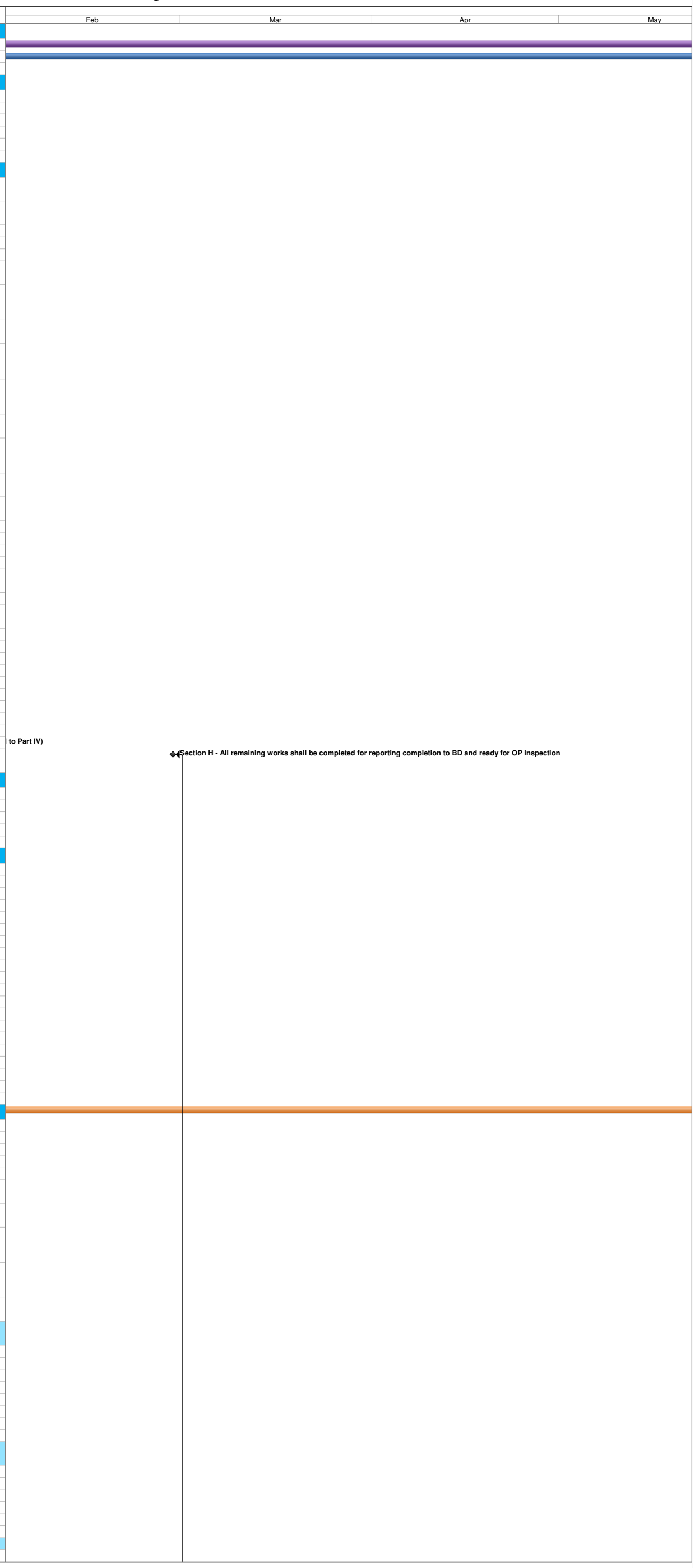
EM&A Log Ref.	Mitigation Measures	Implementation Status
G1	All percussive piling works shall be conducted on reclaimed land to avoid noise impact to marine mammals**	N/A
G2	All construction related vessels shall approach the extension site from the north and via the East Lamma Channel to avoid disturbance 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**	N/A
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
C - Compliance with mitigation measure
NC - Non-compliance with mitigation measure
N/A - Not Applicable

Contract No. 19/83002 Lamma Power Station Extension Civil and Building Works for Unit L12 — MASTER PROGRAMME

ID	Task Name	Duration
1	**KEY DATES & MILESTONES**	**1123 days**
2	Contract Period	1123 days
3	Deferred Work Completion Key Dates	784 days
4	Substantial Completion of the Whole Contract Works (1123 Days)	0 days
5	**SITE POSSESSION DATES**	**513 days**
6	Site Possession Date as phased site possesion plan and PS1.4.2	0 days
7	Site Possession Date as phased site possesion plan and PS1.4.2	0 days
8	Site Possession Date as phased site possession plan and PS1.4.2	0 days
9	Site Possession Date as phased site possession plan and PS1.4.2	0 days
10	Site Possession Date as phased site possesion plan and PS1.4.2	0 days
11	Site Possession Date as phased site possesion plan and PS1.4.2	0 days
12	**COMPLETION DATES as per PS1.4.2 Time for Completion**	**609 days**
13	Section A1 (i) - Area south of L12 MSB and L12 HRSG from GL12-F eastwards leading to Chimney Road at Area F1 & F2	0 days
14	Section A1 (ii) - Supporting structures for overhead cranes of L12 MSB including the associated roof structure except the roof deferred works	0 days
15	Section A2 (i) External Works including CW Inlet Culvert at Area F8A	0 days
16	Section A2 (ii) External Works including CW Intet Culvert at Area F8B	0 days
17	Section A2 (iii) External Works including CW Inlet Culvert at Area F8C	0 days
18	Section B1 - Area south of L12 MSB from GL12-F westwards leading to Station Road at Area F3	0 days
19	Section B2 (i)- Southern Part of L12 HRSG areas and its surrounding refer to Area F6B as shown in drawing no 553/03/2040 including the foundations for Gas Exhaust Duct	0 days
20	Section B2 (ii) - Remaining northern part of Ll2 HRSG area and its surrounding at Area F6A and F6C	0 days
21	Section B2 - (iii) L12 Turbo Block foundation including the L12 MSB ground floor together with the 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	0 days
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 condenser	0 days
23	Section C - (i) Roads and external grounds surrounding L12 MSB and L12 HRSG in addition to the southern & eastern areas mentioned above in Area F5	0 days
24	Section C - (ii) Whole of L12 MSB including the pipe and cable rack along south façade of L12 MSB with all underground utilities at Area F4 including C.W. Inlet and Outlet Culvert except the deferred works	0 days
25	Section C - (iii) Link Bridge between L11 and L12 MSB including their associated A&A at L11 MSB	0 days
26	Section D - (i) Microwave Antenna Room and Chimney Windshiled for the installation of miscrowave equipment and antenna	0 days
27	Section D (ii) - No. 5 Chimney with L12 Steel Flue liner	0 days
28	Section E (i) Tx Room of Adminintration and Control Building	0 days
29	Section E (ii) - G/F,1/F, 2/F & Hoisting Well of Admin. & Control Building	0 days
30	Section E (iii) - Whole of Admin. And Control Building	0 days
31	Section F (i) - Gas Receiving Station and L12 Gas Receiving Station Equipment Room (GRS) Area Extension at Area F14	0 days
32	Setion F (ii) - Pipe and Cable rack and external work at Area F9A and F9B	0 days
33	Section F (iii) - No. 5 CW Equipment Room, pipe and cable rack, external works at Area F10	0 days
34	Section G (i) - External Work surrounding Area F11	0 days
35	Section G (ii) - External Works at Area F12 & F13	0 days
36	Section G (iii) - FS Modification works along South Seafront Road at Area F15	0 days
37	Section G (iv) - 275kV cable trenches and External Works at Area F16	0 days
38	Section G (v) - Shunt Reactor Compound and External Works at Area F17	0 days
39	Section G (vi) - 275kV cable trenches and External Works at Area F18	0 days
40	Section G (vii) - Flood Wall at No. 4 CW Intake Area along HUA at Area F20A	0 days
41	Seciton G (viii) - Flood wall at No. 5 CW Intake Area along HUA at Area F20B	0 days
42	Seciton G (ix) - Bund wall modification works at South Seafront Road at Area F21	0 days
43	Section G (x) - DAX Cable Diversion Works (from Part I to Part IV)	0 days
44	Section H - All remaining works shall be completed for reporting completion to BD and ready for OP inspection	0 days
45	**GENERAL & PRELIMINARY**	**228 days**
46	First Mobilization	18 days
47	Set up Temporary Site Office and Welfare Factiliites	90 days
48	Permit Applications & Statuary Submissions	120 days
49	Existing Utilities scanning & Excavation Permit	45 days
50	Tower Crane erections	60 days
51	**TECHNICAL SUBMISSION AND APPROVAL**	**314 days**
52	BD Approval & Consent (If required)	0 days
53	Submission and Approval of Master Programme	14 days
54	Work Execuation Overal Plan submission & approval	14 days
55	Material Submissions and approval	300 days
56	Method Statement submission and approval	300 days
57	BIM Model, CSD & CBWD Submission & approval	120 days
58	Structure Steelwork Connection Design Submission & BD approval	45 days
59	Structure Steelwork Shop Drawing & Approval	30 days
60	Metal Cladding, louvre & windows submission & BD approval	45 days
61	Metal Cladding, louvre & windows shop drawing submission	45 days
62	Order, Off Site Fabrication and Delivery (S. Steel & Cladding & louvres)	120 days
63	ELS Submission and BD approval	90 days
64	No. 5 Chimney windshield temporary work submission, approval & fabrication	60 days
65	Steel Flue Assessment Report and Design Drawings submission & approval	60 days
66	Folding Shutters Shop Drawing Submission & Approval	30 days
67	Fabrication & Delivery of Folding Shutters	180 days
68	Sewage Pump System Design submission & approval	45 days
69	Fabrication & Delivery of Sewage Pump	180 days
70	Other material submission & approval & delivery	180 days
71	Other material submission & approval & delivery	180 days
72	**CONSTRUCTION**	**1123 days**
73	**Coordination with the Employer's Specialist Contractors**	**421 days**
74	Installation of Puddle Pipes at C.W. outlet Culvert	7 days
75	Installation of Puddle Pipes at C.W. Inlet Culvert	7 days
76	Template setting at L12 Turbo Block Foundation	45 days
77	Template setting of holding down bolts at HRSG column base	45 days
78	I-beam / channel base installation on top of transformer foundations at Transformer Area	45 days
79	Overhead crane erection at turbine hall using access through a temporary opening at L12 MSB roof between GL12-G to 12-H and 12-2 to 12-6	38 days
80	Condenser assembly and erection using access through a temporary façade opening at L12 MSB below 1/F along GL 12-6 from GL12-B to 12-C including a clear space below 1/F between GL 12-B to 12-C	122 days
81	Installation of power train equipment including air inlet duct using access through a temporary façade opening at L12 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	121 days
82	Installation of embedded materials such as holding down bolts for equipment foundations - Commencement	0 days
83	**Section A1 (i) - Area south of L12 MSB and L12 HRSG from GL12-F eastwards leading to Chimney Road at Area F1 & F2**	**301 days**
84	Area Possession & Clearance	30 days
85	Subletting / Fabrication / Delivery (both for Area F1 and Area F2)	60 days
86	Excavation for CW Inlet Culvert (Type D Construction Area)	14 days
87	Installation CW Inlet Culvert pipe + testing	30 days
88	Construction of Thrust Box & Manholes,etc	14 days
89	Backfill	14 days
90	Construction UG Utilities 2m deep below further surface	30 days
91	Temporary Paving and handover for plant erection	13 days
92	**Section A1 (ii) - Supporting structures for overhead cranes of L12 MSB including the associated roof structure except the roof deferred workss**	**301 days**
93	Area Possession & Clearance	45 days
94	Subletting / Fabrication / Delivery	210 days
95	Complete structural steel erection	0 days
96	Install Crane Girders	18 days
97	Construction of roof slab (except defer work)	21 days
98	Touch up and handover for install overhead cranes	3 days
99	**Section A2 (i) External Works including CW Inlet Culvert at Area F8A**	**301 days**
100	BD consent for Sheetpile installation	30 days

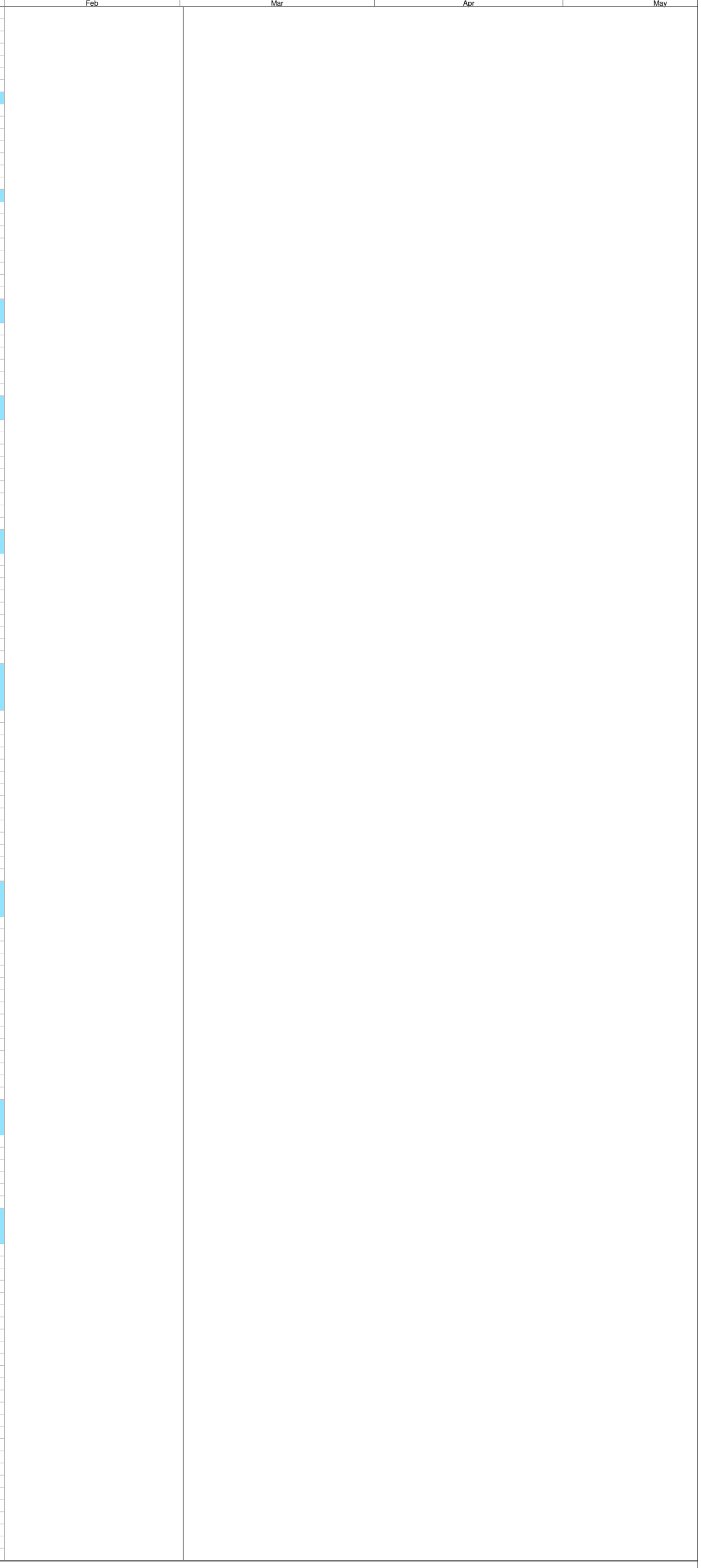


REVISED MASTER PROGRAMME
4 JAN 2021 Rev. 1-A

Task — Split ..... Milestone ◆ Summary

Contract No. 19/83002 Lamma Power Station Extension Civil and Building Works for Unit L12 — MASTER PROGRAMME

ID	Task Name	Duration
101	Subletting / Fabrication / Delivery (both for Area F8A-F8B)	30 days
102	Area Possession & Clearance	14 days
103	Install Sheet pile	55 days
104	BD Consent for ELS	28 days
105	ELS and install CW Inlet Pipe (NW to N direction)	60 days
106	Construction of Thrust Box & Manholes,etc	36 days
107	Backfill, UG Utilities and Road Paving	79 days
108	**Section A2 (ii) External Works including CW Intet Culvert at Area F8B**	**483 days**
109	Area Possession & Clearance	30 days
110	BD consent for Sheetpile installation	30 days
111	Install Sheet pile	90 days
112	BD Consent for ELS	28 days
113	ELS and install CW Inlet Pipe	90 days
114	Construction of Thrust Box & Manholes,etc	60 days
115	Backfill, UG Utilities and Road Paving	96 days
116	**Section A2 (iii) External Works including CW Inlet Culvert at Area F8C**	**182 days**
117	Area Possession & Clearance	30 days
118	Subletting / Fabrication / Delivery (for Area F8C)	60 days
119	BD consent for Sheetpile installation	30 days
120	Install Sheet pile	34 days
121	BD Consent for ELS	28 days
122	ELS and install CW Inlet Pipe	40 days
123	Construction of Thrust Box & Manholes,etc	30 days
124	Backfill, UG Utilities and Road Paving	20 days
125	**Section B1 - Area south of L12 MSB from GL12-F westwards leading to Station Road at Area F3**	**377 days**
126	Area Possession & Clearance	30 days
127	Subletting / Fabrication / Delivery	120 days
128	Complete CW Pipe Installation & Thrust box	45 days
129	Backfill	14 days
130	Construction of Storm Drain & Manholes	80 days
131	Temp Paving and handover for Condenser Move in	20 days
132	**Section B2 - (i) Southern part of L12 HRSG area and its surrounding at Area F6B including the foundations for Gas Exhaust Duct**	**243 days**
133	Area Possession & Clearance	30 days
134	Subletting / Fabrication / Delivery (for F6B Civil and E&M)	120 days
135	Construction of Underground pits	35 days
136	Excavation & Construct Pile Caps & Tie Beams & Piers	60 days
137	Construction HRSG & Gas Duct foundations	45 days
138	Construction of HRSG Equipment Room incl. ABWF & BS (except T&C)	150 days
139	Construction underground utilities within HRSG	45 days
140	Backfill & Construction on-grade slabs & RC plinths on top	60 days
141	Backfill and Temporary paving	21 days
142	**Section B2 (ii) - Remaining northern part of Ll2 HRSG area and its surrounding at Area F6A and F6C**	**319 days**
143	Area Possessiong and Clearance at Area F6A	30 days
144	Subletting / Fabrication / Delivery (for Area F6A and F6C civil)	90 days
145	Construction of Underground pits	30 days
146	Excavation & Construct Pile Caps & Tie Beams & Piers	60 days
147	Construction underground utilities within HRSG	21 days
148	Backfill & Construction on-grade slabs & RC plinths on top	21 days
149	Construct RC Walls	90 days
150	Construction of Underground utilities at F6C	60 days
151	Backfill and Temporary paving	15 days
152	**Section B2 - (iii) L12 Turbo Block foundation including the L12 MSB ground floor together with the 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**	**408 days**
153	Area Possession & Clearance	45 days
154	Subletting / Fabrication / Delivery (Civil+ABWF+BS for MSBL12)	150 days
155	Complete excavation at Type A&C Construction Area	0 days
156	Excavation & Pile Caps & Tie Beams + Slabs (Turbo Block North)	75 days
157	Backfill and construction turbine block & equipment foundation	40 days
158	Excavation & Pile Caps & Tie Beams + Slabs (Turbo Block South)	45 days
159	Construction of internal drainage & on-grade slab	30 days
160	Construction turbine block columns and upper portion for plant embed installation	21 days
161	Concrete Turbine upper part foundation & clear falsework	30 days
162	Construction of Lube Oil Room	45 days
163	Concrete RC walls	50 days
164	ABFW Works	30 days
165	Building Services Works	45 days
166	Remove temporary falsework and scaffolding for installation of power generator	13 days
167	**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 condenser**	**377 days**
168	**Area Possession & Clearance**	**45 days**
169	Subletting / Fabrication / Delivery (for MSB L12 civil)	150 days
170	**Excavation to foundation level at ELS SP Type A & C**	**30 days**
171	Install CW Outlet pipe	30 days
172	Construction of CW Outlet Box + lowest tie beam & caps	50 days
173	Construction of pile caps & tie beams & sump pits up to +2.5mPD	26 days
174	Backfill & Construction of CW Inlet Box + tie beams	24 days
175	Construction of pile caps & tie beams at SunShadeCover Area	18 days
176	Backfill and Construction ground beams & trenches & equipment foundations	14 days
177	Construction of indoor underground drainage	14 days
178	Backfill & construction on-grade slabs	18 days
179	Construction Column casting and RC walls	50 days
180	ABFW Works	16 days
181	Building Services Works	45 days
182	Mis. Works and Ready for condenser move in	29 days
183	**Section C - (i) Roads and external grounds surrounding L12 MSB and L12 HRSG in addition to the southern & eastern areas mentioned above in Area F5**	**408 days**
184	Area Possession & Clearance	30 days
185	Subletting / Fabrication / Delivery	210 days
186	Complete substructure & Steel Erection works for MSB	0 days
187	Construction all utilities deeper than 2m from future road level	60 days
188	Construction of cable trenches	90 days
189	Backfill and lay temporary paving	21 days
190	**Section C - (ii) Whole of L12 MSB including the pipe and cable rack along south façade of L12 MSB with all underground utilities at Area F4 including C.W. Inlet and Outlet Culvert except the deferred works**	**408 days**
191	**Area Possession & Clearance**	**45 days**
192	Subletting / Fabrication / Delivery	120 days
193	**Construction of pile caps & tie beams at Transformer Area**	**30 days**
194	Backfill and on-grade slab at transformer Area	21 days
195	Construction of Fire Walls at Transformer Area	45 days
196	Excavation & Construction Blow Down Sum pit (SP Type B)	50 days
197	Preaparation for S.Steelwork Erection	7 days
198	Structural Delivery & Erection (Turhine Hall North fr G.L. 1-3/H->B)	35 days
199	Structural Delivery & Erection (Equipment Floors)	55 days
200	Structural Delivery & Erection (Turbine Hall South + East Elevation)	40 days
201	Joint Tightening and touch up coating	145 days
202	External Scaffolding Erection	150 days
203	Construction 1/F RC Slab	14 days
204	Construction 2/F RC Slab	18 days
205	Construction 3/F RC Slab	18 days
206	Construction 4/F RC Slab	18 days
207	Construction 5/F RC Slab	18 days
208	Construction 6/F RC Slab	14 days
209	Construction Upper Roof RC Slab	10 days
210	Construction Main Roof RC Slab	25 days
211	Construction Defer Roof RC Slab (G.L. G-H)	14 days
212	Construction of Staircase ST-01 & lift shaft & machine room	150 days
213	Construction M/F RC Slab	14 days
214	Lift Installation	75 days
215	Construction of Staircase ST-02 except defer work	75 days
216	Construction of RC plinth, kerbs & parapet Walls	75 days



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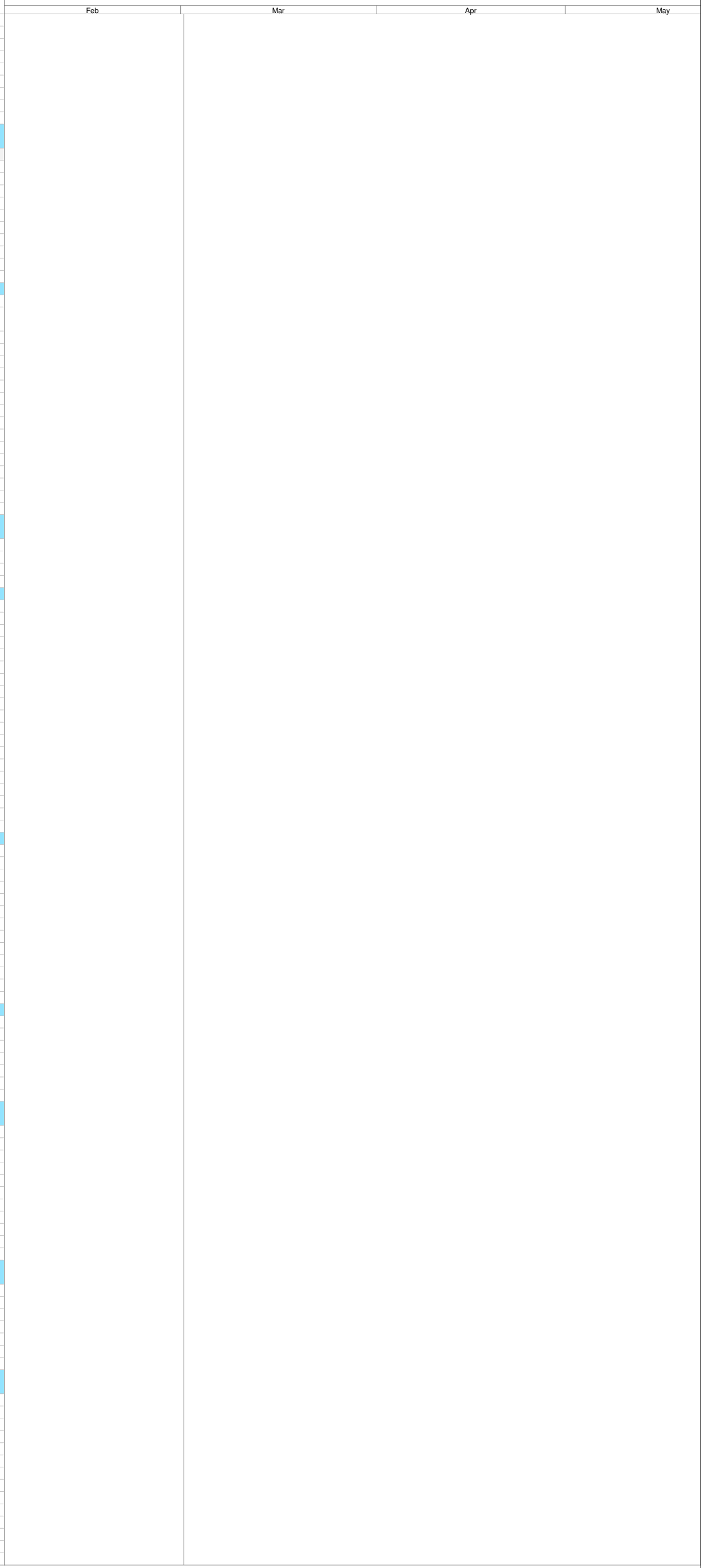
Task — Split ..... Milestone ◆ Summary

Contract No. 19/83002 Lamma Power Station Extension Civil and Building Works for Unit L12 — MASTER PROGRAMME

ID	Task Name	Duration
217	Erection of Skylight & Roof Features	56 days
218	Waterproofing & Flooring at Roof	50 days
219	ABFW Works	120 days
220	Building Services Works	135 days
221	Metal Cladding, Windows and Louvres incl. roof feature	145 days
222	Removal of external scaffolding	95 days
223	Installation of Catwalk at south elevation	21 days
224	Cladding, ABWF & BS Works	30 days
225	Removal of tempoary works & clearance for plant erection contractor	30 days
226	**Section C - (iii) Link Bridge between L11 and L12 MSB includin their associated A&A at L11 MSB**	**408 days**
227	**BD Consent**	**0 days**
228	Subletting / Fabrication / Delivery (For BS and ABWF)	250 days
229	Clearing Works and plant set-up	30 days
230	Dismantle of north scaffold for link bridge erection	0 days
231	A&A works at South of L11 MSB	30 days
232	Erection of link bridge structural steel	30 days
233	Casting of bridge deck	11 days
234	Metal roofing installation	24 days
235	ABWF work	30 days
236	BS Works	20 days
237	Ready for power cable laying work by others	0 days
238	**Section D - (ii) No. 5 Chimney with L12 Steel Flue Liner**	**485 days**
239	Area Possession & Clearance	45 days
240	Subletting / Fabrication / Delivery (For Civil and BS for Microwave Antenna and Equipment)	120 days
241	Excavation & Pile Cap & Backfill + Ground slab	45 days
242	Tower Crane erection (Optional)	28 days
243	Construction of Wind Shiled + clearance for internal floors and flue	150 days
244	Structural steel fabrication & Delivery for floors and staircase	90 days
245	Erection of steel floors	60 days
246	Construction of G/F room incl. Microwave Antenna Rm	45 days
247	Construction of 1/F RC slab	14 days
248	Construction of 2/F RC slab	14 days
249	Construction of 3/F RC slab	16 days
250	Construction of 4/F RC slab	16 days
251	Construction of 5/F RC slab	18 days
252	Construction of Roof RC slab	18 days
253	Steel Flue fabrication and delivery	145 days
254	Set up for steel flue installation	14 days
255	Lift & install steel flue liner + cladding works	90 days
256	**Section D (i) - ABWF and BS Works at Microwave Antenna Room and Chimney Windshield for installation of microwave and antenna**	**209 days**
257	Remaining ABWF & BS Works	100 days
258	Lift installation	90 days
259	Installation Louvre & Doors	30 days
260	Mis works, Demobilization and ready for gas duct connection	17 days
261	**Section E - (iii) Administration and Control Building**	**513 days**
262	Area Possession & Clearance + BD consent	60 days
263	Subletting / Fabrication / Delivery (For Civil+BS+ABWF)	21 days
264	Excavation works	45 days
265	Main Earth Grid Installation	45 days
266	Pile cap and Tie Beam	45 days
267	Tower Crane Erection	30 days
268	Substructure + Bearing walls + On grade slabs	30 days
269	Construction of RC up to 1/F incl. staircases	50 days
270	Construction of RC up to 2/F incl. staircases	55 days
271	Construction of RC up to 3/F incl. staircases	55 days
272	Tempoary Hoist erection	14 days
273	Construction of RC up to 4/F incl. staircases	30 days
274	Construction of RC up to R/F incl. staircases	30 days
275	Construction of RC up to lift machine room	21 days
276	Construction of RC up to UR/F	21 days
277	External Wall Finish, Cladding + Windows and Louvres + Features	100 days
278	Removal of external scaffolding	45 days
279	Waterproofing & screeding	60 days
280	ABWF at G/F	120 days
281	**Section E (i) Complete Transformer Room for move in**	**60 days**
282	Clearing Works and plant set-up	21 days
283	Subletting / Fabrication / Delivery (For NSC Lift)	180 days
284	ABWF at 1/F	100 days
285	ABWF at 2/F	100 days
286	ABWF at 3/F	120 days
287	ABWF at 4/F	90 days
288	ABWF at R/F	60 days
289	ABWF at UR/F + Lift Machine Room	45 days
290	Bridge Erection & Connection	50 days
291	Building Services Works	160 days
292	Submission of WW046 for completion	60 days
293	Installation of Raised floors	60 days
294	False ceiling after BS works	60 days
295	**Section E (ii) Handover G/F, 1/F, 2/F & Hoisting Well**	**0 days**
296	Subletting / Fabrication / Delivery (For BS+ABWF)	149 days
297	Construction of New UG Grey Water Tank	60 days
298	Removal of Tower Crane	7 days
299	External utiliites and road work	45 days
300	Submission of WW046 for completion	30 days
301	Subimsion of FS inspection	14 days
302	Submisision for OP Inspection	14 days
303	**Section F (i) - Gas Receiving Station and L12 Gas Receiving Station Equipment Room (GRS) Area Extension at Area F14**	**426 days**
304	Area Possession & Clearance + BD consent	90 days
305	Subletting / Fabrication / Delivery	60 days
306	Plate load test	30 days
307	Construction Equipment room extension	145 days
308	Modification of existing drainage	45 days
309	Excavation & earthing for Skid foundations	21 days
310	Construction of Skid foundation	45 days
311	Construct underground utilities and drainage	45 days
312	Backfill and road works	60 days
313	Relocate / install new fencing for completion	21 days
314	Mis. Work and ready for OP inspection	14 days
315	**Section F (ii) - Pipe and Cable rack and external work at Area F9A and F9B**	**515 days**
316	BD consent + Site Possession at Area F9A & F9B	90 days
317	Excavation & Plate load test	45 days
318	Construction new footing for pipe rack	45 days
319	Underground utiilites and road works for completion	72 days
320	Structural Steel fabrication & Delivery	90 days
321	Ercetion of new pipe rack	60 days
322	Mis. Work and ready for OP inspection	21 days
323	**Section F (iii) - No. 5 CW Equipment Room, pipe and cable rack, external works at Area F10**	**273 days**
324	Area Possession & Clearance + BD consent	90 days
325	Subletting / Fabrication / Delivery For ABWF + BS	150 days
326	Excavation & Plate load test	30 days
327	Construction new footing for equipment room	45 days
328	Superstructure for equipment room	90 days
329	ABWF Works	70 days
330	BS Works	90 days
331	Construction RC Wall & plinths & drainage at Chlorinator area	45 days
332	External wall finish & remove scaffolding	30 days
333	Excavation & Plate load test for pipe rack extension	30 days
334	Construction new footing for pipe rack	45 days
335	Underground utiilites and road works for completion	60 days
336	Structural Steel fabrication & Delivery	90 days
337	Backfilling and prepare for steel erection	8 days



REVISED MASTER PROGRAMME
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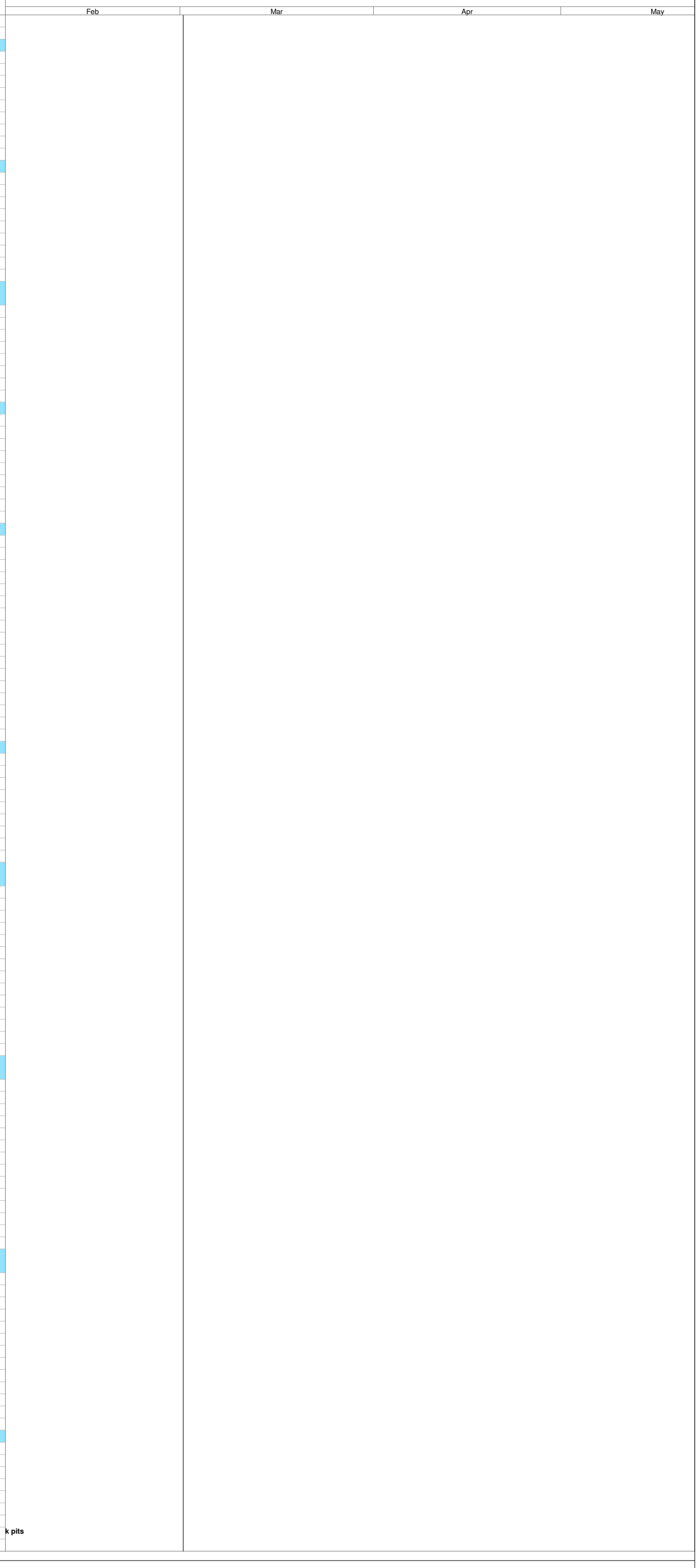
Task Split Milestone ◆ Summary

Contract No. 19/83002 Lamma Power Station Extension Civil and Building Works for Unit L12 — MASTER PROGRAMME

ID	Task Name	Duration
338	Ercetion of new pipe rack	70 days
339	Mis. Work and ready for OP inspection	15 days
340	**Section G (i) - External Work surrounding Area F11**	**153 days**
341	Area Possession & Clearance after handover from No. 5 Intake Contractor	30 days
342	Subletting / Fabrication / Delivery	30 days
343	Submission WWO046 for commencement	30 days
344	Construct Underground utilities and drainage	30 days
345	Install new FS Hydrant	20 days
346	Submission WWO046 for completeion	30 days
347	Construction Road extension	58 days
348	Construction road paving and install fencing	30 days
349	Ready for OP inspection	15 days
350	**Section G (ii) - External Works at Area F12 & F13**	**666 days**
351	Area Possession & Clearance after handover from other	45 days
352	Subletting / Fabrication / Delivery	180 days
353	Excavation	21 days
354	Submission WWO046 for commencement	30 days
355	Construct Underground utilities and drainage	90 days
356	Install new FS Hydrant	30 days
357	Submission WWO046 for completion	30 days
358	Construction Road extension	127 days
359	Complete with Mis. Works for completion	15 days
360	**Section G (iii) - FS Modification works along South Seafront Road at Area F15**	**183 days**
361	Area Possession & Clearance after handover from other	45 days
362	Subletting / Fabrication / Delivery	21 days
363	Temporary Traffice Arrangement approval	14 days
364	Utilities scanning and expose existing FS	14 days
365	Determine new FS alignment	21 days
366	Submission to FSD	14 days
367	Modification of FS	60 days
368	Backfill and reinstatment + report to FSD	60 days
369	**Section G (iv) - 275kV cable trenches and External Works at Area F16**	**518 days**
370	Area Possession & Clearance	60 days
371	Subletting / Fabrication / Delivery	210 days
372	Temporary Traffice Arrangement approval	60 days
373	Removal of aboveground services	60 days
374	Utilities scanning and expose exising UU	30 days
375	Arrange of diversion existing UG utilities	90 days
376	Construct new cable trenches	173 days
377	Realigment / install new UG utilities	60 days
378	backfill and reinstate & ready for cable laying by others	45 days
379	**Section G (v) - Shunt Reactor Compound and External Works at Area F17**	**666 days**
380	Temporary Traffice Arrangement approval	45 days
381	Subletting / Fabrication / Delivery	100 days
382	BD approval & consent for sheetpile installation	90 days
383	Area Possession & Clearance	14 days
384	Removal of aboveground services	21 days
385	Utilities scanning and expose exising UU	15 days
386	Arrange of diversion existing UG utilities	45 days
387	Install pipe piles	61 days
388	BA14 for pipepile and BD consent for ELS	28 days
389	Excavation & install earthing	35 days
390	Construct Pile Caps and Tie Beams	45 days
391	Backfill & Erect scaffold	21 days
392	Construction of SRC Walls	75 days
393	Wall finish and remove scaffolding	24 days
394	Construct new cable trenches	60 days
395	Realigment / install new UG utilities	117 days
396	Backfill and reinstate & ready for cable laying by others	30 days
397	**Section G (vi) - 275kV cable trenches and External Works at Area F18**	**397 days**
398	Temporary Traffice Arrangement approval	45 days
399	Subletting / Fabrication / Delivery	60 days
400	Area Possession & Clearance	15 days
401	Removal of aboveground services	30 days
402	Utilities scanning and expose exising UU	45 days
403	Arrange of diversion existing UG utilities	60 days
404	Construct new cable trenches	172 days
405	Realigment / install new UG utilities	45 days
406	backfill and reinstate & ready for cable laying by others	30 days
407	**Section G (vii) - Flood wall at No. 5 CW Intake Area along HUA at Area F20A**	**301 days**
408	Area Possession & Clearance	30 days
409	Subletting / Fabrication / Delivery	60 days
410	Temporary Traffice Arrangement approval	14 days
411	ELS BD approval & consent	90 days
412	Demolition of existing carriageway	30 days
413	Removal of aboveground services	21 days
414	Utilities scanning and expose exising UU	21 days
415	Arrange of diversion existing UG utilities	30 days
416	Install Sheet piles	45 days
417	BA14 for sheetpile and BD consent for ELS	28 days
418	Excavation and construction of new Flood wall	65 days
419	Realigment / install new UG utilities	30 days
420	backfill and construct new carriageway	18 days
421	Mis. Work for completion	6 days
422	**Section G (viii) - Flood wall at No. 5 CW Intake Area along HUA at Area F20B**	**365 days**
423	Area Possession & Clearance	45 days
424	Subletting / Fabrication / Delivery	90 days
425	Temporary Traffice Arrangement approval	14 days
426	ELS BD approval & consent	90 days
427	Demolition of existing carriageway	60 days
428	Removal of aboveground services	21 days
429	Utilities scanning and expose exising UU	21 days
430	Arrange of diversion existing UG utilities	30 days
431	Install Sheetpiles	55 days
432	BA14 for sheetpile and BD consent for ELS	28 days
433	Excavation and construction of new Flood wall	90 days
434	Realigment / install new UG utilities	30 days
435	backfill and construct new carriageway	21 days
436	Mis. Work for completion	9 days
437	**Section G (ix) - Bund wall modification works at South Seafront Road at Area F21**	**209 days**
438	Area Possession & Clearance	45 days
439	Subletting / Fabrication / Delivery	90 days
440	Temporary Traffice Arrangement approval	14 days
441	ELS BD approval & consent	0 days
442	Demolition of existing carriageway	14 days
443	Removal of aboveground services	14 days
444	Utilities scanning and expose exising UU	21 days
445	Arrange of diversion existing UG utilities	30 days
446	Excavation and expose existing bund wall & demolish	18 days
447	Construction new bund wall for road junction	45 days
448	Realigment / install new UG utilities	30 days
449	backfill and construct new carriageway	18 days
450	Mis. Work for completion	5 days
451	**Section G (x) - DAX Cable Diversion Works (from Part I to Part IV)**	**758 days**
452	Temporary Traffice Arrangement approval	14 days
453	Subletting / Fabrication / Delivery	90 days
454	Area Possession & Clearance	45 days
455	Identification of existing cable trench	7 days
456	Part 1 Re-excavation works incl.construction of joint bay	246 days
457	Part 2 Re-excavation works incl. joint bay	120 days
458	Part 3 Re-excavation works incl. joint bay	242 days
459	Part 4 Re-excavation works incl. joint bay & new oil tank pits	92 days
460	Backfill & Reinstatement Part 1	61 days



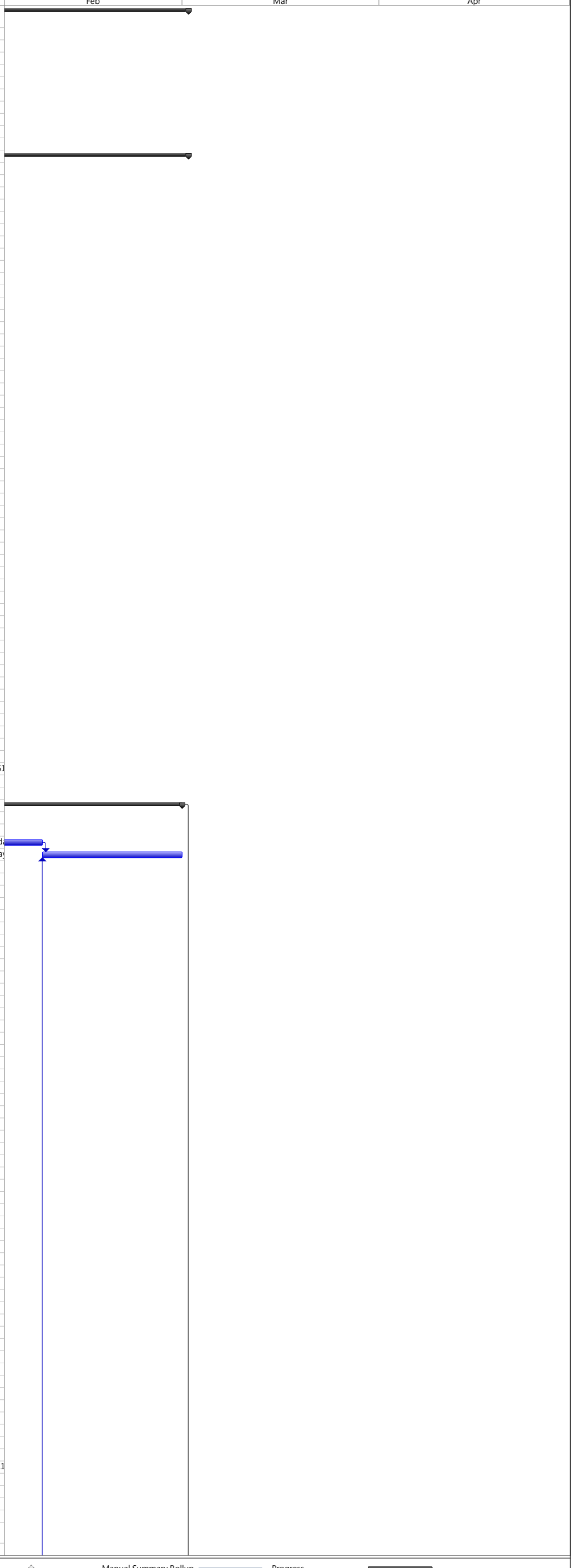
Contract No. 19/83002 Lamma Power Station Extension Civil and Building Works for Unit L12 — MASTER PROGRAMME

ID	Task Name	Duration
461	Backfill & Reinstatement Part 2	61 days
462	Backfill & Reinstatement Part 3	61 days
463	**Section H - All remaining works shall be completed for reporting completion to BD and ready for OP inspection (PS1.4.4)**	**478 days**
464	**Deferred works (MSB & HRSG) Listed in PS 1.4.4**	**281 days**
465	Construction ofL12 MSB roof between GL12-G to 12-H and 12-2 to 12-6 after the overhead crane installation by the Employer's Specialist Contractors	38 days
466	Construction of walls ofL12 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 Specialist Contractors to use the hoisting we	92 days
467	Provision in associated with hoisting well	21 days
468	Construction of internal partition wall at 1/F ofL12 MSB along GL 12-C from GL 12-2 to 12-3 AND North Façade at 1/F of L12 MSB along GL 12-1 from GL 12-B to 12-C	30 days
469	Construction of metal fence and the associated Fire Services (F.S.) installations and installation of removable shelter at Transformer Area	92 days
470	**Deferred works (DAX1 and DAX2) Listed in PS 1.4.4**	**334 days**
471	Backfilling of whole DAXl compartment inside existing joint bay "STJI2" and the new oil tank pit A located aside existing joint bay "STJI2".	59 days
472	Re-excavation of whole DAX2 compartment inside existing joint bay "STJI2".	61 days
473	Backfilling of whole DAX2 compartment inside existing joint bay "STJI2" and the new oil tank pit B located aside existing joint bay "STJI2".	61 days
474	**Deferred works (External Work) Listed in PS 1.4.4**	**121 days**
475	Final reinstatement of access roads and pavement surrounding and within L12 MSB and L12 HRSG area	62 days
476	Installation of trench cover and road reinstatement of gas pipe and cable trenches within Area F5, F14, F16, F17 and F18.	90 days
477	Backfilling and road-reinstatement of 275kV cable trenches	90 days
478	All Remaining work ready for OP inspection	0 days
479	**STATUTORY SUBMISSION, INSPECTION & APPROVAL**	**865 days?**
480	**WSD Statutory Submission, Inspection and Approval WWO Part I to III Submission / Approval**	**256 days**
481	WSD : Submit to WSD Form WWO 046 Part I to II - FOR ACB Building (for Ext Works at later stage)	0 days
482	WSD: Vetting Form WWO 046 Part I and II Submission	90 days
483	WSD: Issued of Form WWO 046 Part III by WSD - FOR ACB Building	0 days
484	WSD: Prepare for 1st Amendment for Plumbing Plan	60 days
485	WSD: Submit to WSD 1st Amendment for Plumbing Plan	0 days
486	WSD: Vetting of Plumbing Plan by WSD	60 days
487	WSD: 1st Approval for Plumbing Plan by WSD	0 days
488	WSD: Prepare and Submit for Final Amendment for Plumbing Plan	45 days
489	WSD: Vetting and Final Approval for Plumbing Plan by WSD	0 days
490	**WSD Statutory Submission, Inspection and Approval WWO Part IV to V Fire Services Water Submission / Approval**	**34 days?**
491	WSD: Form WWO 046 Part IV Submission (FS)	0 days
492	WSD: WSD Recieved Form WWO046 Part IV and arrange for inspection (FS)	7 days
493	WSD: WSD Inspection (FS)	7 days
494	WSD: WWO 046 Part V Endorsement by WSD (FS)	12 days
495	WSD: WSD Processing Water Supply Connection Certificate (FS)	7 days
496	WSD: Issue by WSD Water Supply Connection Certificate (FS)	0 days?
497	**WSD Statutory Submission, Inspection and Approval WWO Part IV to V Potable /Flush Water Submission / Approval**	**60 days**
498	WSD: Form WWO 046 Part IV Submission (Fresh/Flush)	0 days
499	WSD: WSD Acknowledge Form WWO 046	6 days
500	WSD: WSD Inspection with Testing to lead (Fresh/Fluhs)	12 days
501	WSD: Cleansing/Disinfecting Water Tanks / Piping System (Fresh/Flush)	6 days
502	WSD: Collection of Sample for Testing at Accredited Lab (Fresh/Flush)	12 days
503	WSD:Accredited Lab Testing Report of Sample to WSD	12 days
504	WSD: Vetting of Test Report by WSD	6 days
505	WSD: Issue of WWO 046 Part V (Fresh/Flush)	0 days
506	WSD: WSD Processing WW01005 Water Certification (Fresh/Flush)	6 days
507	WSD: Issue by WSD WWO 1005 Water Certification (Fresh/Flush)	0 days
508	**EMSD LIFT Statutory Submission, Inspection and Approval**	**45 days**
509	EMSD: Submission of Lift Form LE5 to EMSD	12 days
510	EMSD: EMSD Makes arrangement for Lift Installation	5 days
511	EMSD: EMSD Inspection to Lift Installation	14 days
512	EMSD: Processing Lift Certificate (Form LE6)	14 days
513	EMSD: Lift Issuance of Form 6 (Lift Certificate)	0 days
514	**HKE Transformer Final Inspection**	**120 days**
515	TX Room: Invite HKE For Transformer Room Inspection	7 days
516	TX Room: Give Access to Transformer Room for HKE Contractor	0 days
517	TX Room: Move-IN HKE Transformer Equipments	5 days
518	TX Room: Install HKE Transformer, MEP Works & Testing	90 days
519	TX Room: HKE Power Energization / Inspection	6 days
520	TX Room: Metering Installation	12 days
521	TX Room: HKE Power-ON Date	0 days
522	**DSD Drainage Completion Memo**	**65 days**
523	DSD: CCTV Survey Report on Completed Drainage	30 days
524	DSD: Submitted CCTV Report & Form HPB1 of Completed Drainage to DSD For Technical Audit	7 days
525	DSD: Completed Drainage System including TMC Inspection/Technical Audit by DSD	14 days
526	DSD: Preparation of Drainage Connection Completion Memo by DSD	14 days
527	DSD: Issue of Drainage Connection Completion Memo by DSD	0 days
528	**EPD Submission, Inspection and Approval**	**60 days**
529	EPD: License Application to EPD under APCO (Cap 311) for Generator Sets	0 days
530	EPD: Vetting of Application by EPD under APCO (Cap 311) for Generator Sets	60 days
531	EPD: Approval from EPD under APCO (Cap 311) for Generator Sets Installation	0 days
532	**FSD VAC Statutory Submission, Inspection and Approval**	**150 days**
533	Preparation of FSD VAC Drawings and Submission to HEC	60 days
534	HEC: Review and Approval	30 days
535	Preparation of VAC Drawings and Submission to FSD	30 days
536	FSD: Review and Approval	30 days
537	**FSD Statutory Submission, Inspection and Approval**	**91 days**
538	Testing and Commissioning (Individual System - FSI Related)	45 days
539	FSD: All Sections FS Ingration Test by NSC_BS	15 days
540	FSD: Completion of FS Integration Test by NSC_BS for FS314/501	0 days
541	FSD: Submit Form 213/314 & Form 501 Request for Inspection	0 days
542	FSD: FSD Makes Arrangement for Inspection	7 days
543	FSD: FSD Inspection	12 days
544	FSD: Completion of FS Inspection	0 days
545	FSD: FSD Processing FS Certicate Form 172	12 days
546	FSD: Issue of Fire Services FS Certificate Form 172	0 days
547	**PRACTICAL COMPLETION**	**216 days**
548	**BD Inspection**	**97 days**
549	BD: Application Form BA13 for OP Application	21 days
550	BD: BD Inspection Date	15 days
551	BD: Reinspection date with defects and rectification works	60 days
552	**BD: Obtain Occupation Permit (OP) from BD**	**1 day**
553	**As-Built Drawings & Handover Documentation**	**120 days**
554	Prepare and Submit As-Built Drawings & Handover Documentation	45 days
555	Review and Approval	45 days
556	As-Built Drawings & Handover Documentation - Revision by MC	30 days
557	Revised As-Built Drawings & Handover Documentation - Final Submission	0 days
558	**Completion of the Whole Contract Works**	**119 days**
559	1st Client Inspection for Review and Comments	30 days
560	Defects and Rectification works	60 days
561	2nd Client Inspection	14 days
562	Minor Defects Rectification Works and Final Inspection	15 days
563	**PRACTICAL COMPLETION**	**0 days**

REVISED MASTER PROGRAMME
4 JAN 2021 Rev. 1-A

Task — Split — Milestone ◆ — Summary

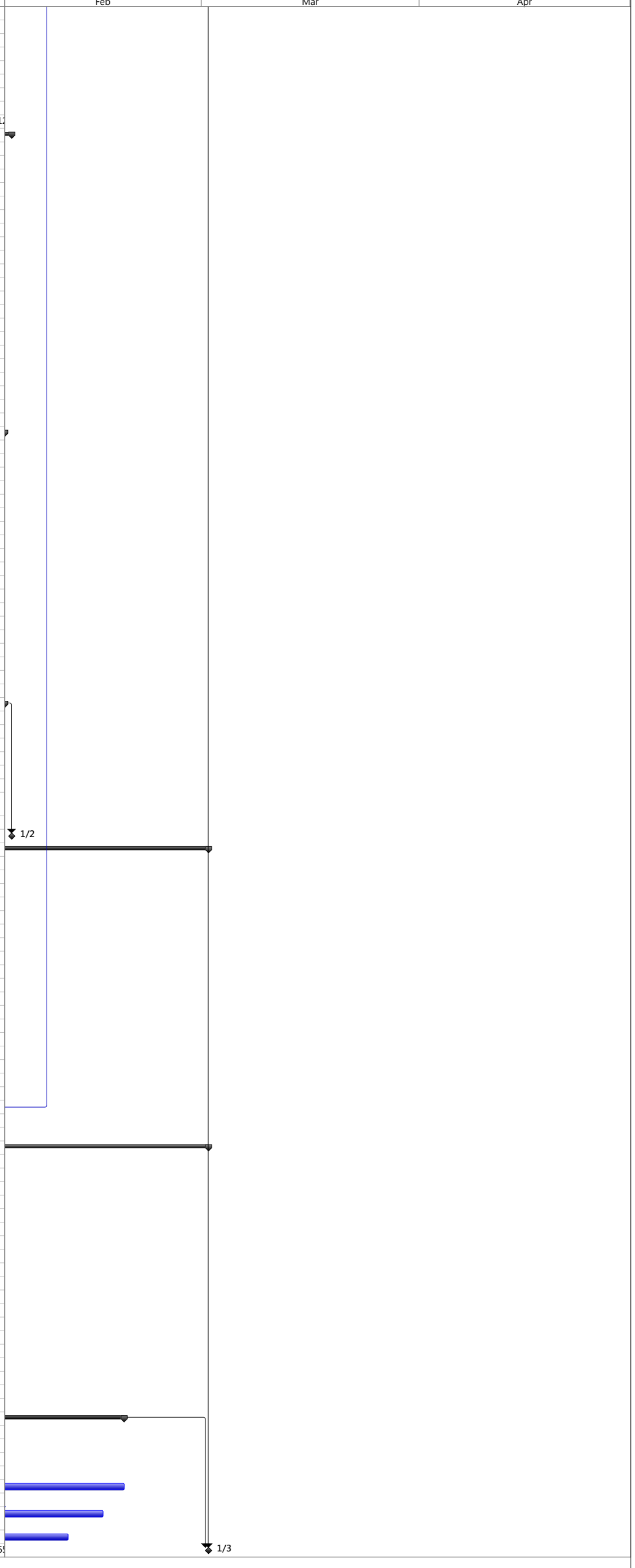
ID	Task Name	Duration	Start	Finish	Predecessors
1	**19-83014 - Civil Works for No. 5 C.W. Intake and Cable Bridge at Lamma Power Station Extension**	**223 days**	**Fri 22/7/22**	**Wed 1/3/23**	
2	**No. 5 C.W. Intake**	**144 days**	**Fri 22/7/22**	**Mon 12/12/22**	
3	Delivery of Precast No. 5 Intake Chamber	3 days	Fri 22/7/22	Sun 24/7/22	
4	Installation of Precast No. 5 Intake Chamber	2 days	Mon 25/7/22	Tue 26/7/22	3
5	Prepare formation level for reinstall culvert	18 days	Wed 27/7/22	Sat 13/8/22	4
6	Reinstate of culvert	7 days	Mon 15/8/22	Sun 21/8/22	
7	Reinstate of seawall block	28 days	Mon 22/8/22	Sun 18/9/22	6
8	Backfill at East Side	20 days	Mon 19/9/22	Sat 8/10/22	7
9	Reinstate of seawall coping	30 days	Thu 3/11/22	Fri 2/12/22	8FS+25 days
10	Reinstate of storm drain (MH806 to MH805)	30 days	Thu 3/11/22	Fri 2/12/22	43FS+10 days
11	Temporary backfill for access at east of Intake Chamber	10 days	Sat 3/12/22	Mon 12/12/22	9,10
12	**In-situ Construction Work for Intake Chamber**	**194 days**	**Sat 20/8/22**	**Wed 1/3/23**	
13	**Backfilling Work between Pipepile and Intake Chamber External Wall**	**19 days**	**Sat 20/8/22**	**Wed 7/9/22**	
14	Backfilling upto +2.80mPD - North side (Between pipepile & W13)	14 days	Sat 20/8/22	Fri 2/9/22	
15	Backfilling upto +2.80mPD - South side (Between pipepile & W1)	5 days	Sat 3/9/22	Wed 7/9/22	
16	Backfilling upto +1.40mPD - West side (Between pipepile & W19)	5 days	Sat 3/9/22	Wed 7/9/22	
17	**Backfilling at Discharge Valve Chamber to -0.5mPD**	**10 days**	**Fri 9/9/22**	**Sun 18/9/22**	
18	Backfill from -5.50mPD to -1.50mPD for Discharge Valve Chamber	10 days	Fri 9/9/22	Sun 18/9/22	
19	**Install Concrete Block Counter Weight**	**25 days**	**Tue 23/8/22**	**Fri 16/9/22**	
20	Installation of Concrete Block inside/ on intake chamber/ culvert	25 days	Tue 23/8/22	Fri 16/9/22	
21	**Removal of Internal Strut/ King Post**	**28 days**	**Sat 20/8/22**	**Fri 16/9/22**	
22	Removal of Internal Strut/ King Post	28 days	Sat 20/8/22	Fri 16/9/22	
23	**Dewatering**	**3 days**	**Tue 20/9/22**	**Thu 22/9/22**	
24	Dewatering in Chamber Internal Side	3 days	Tue 20/9/22	Thu 22/9/22	14,15,17,19
25	**Corrosion Protection of Rebar**	**8 days**	**Fri 23/9/22**	**Fri 30/9/22**	
26	Corrosion Protection of Rebar	8 days	Fri 23/9/22	Fri 30/9/22	23
27	**Construction of Intake Chamber External Wall to Level +5.70mPD**	**111 days**	**Sun 28/8/22**	**Fri 16/12/22**	
28	**Erection of Scaffolding Supporting Bracket**	**48 days**	**Sun 28/8/22**	**Fri 14/10/22**	
29	North Side - W13 (Chamber Internal Side)	6 days	Sun 28/8/22	Fri 2/9/22	
30	South Side - W1 (Chamber Internal Side)	6 days	Fri 2/9/22	Wed 7/9/22	
31	West Side - W19 (Chamber Internal Side)	6 days	Mon 19/9/22	Sat 24/9/22	18
32	East Side - (Chamber Internal Side)	18 days	Tue 27/9/22	Fri 14/10/22	38SF-1 day
33	**Installation of Scaffolding**	**51 days**	**Sat 3/9/22**	**Sun 23/10/22**	
34	**Chamber Internal Side**	**51 days**	**Sat 3/9/22**	**Sun 23/10/22**	
35	North Side - W13	5 days	Sat 3/9/22	Wed 7/9/22	29
36	South Side - W1	5 days	Thu 8/9/22	Mon 12/9/22	30
37	West Side - W19	5 days	Sun 25/9/22	Thu 29/9/22	31
38	East Side	15 days	Sun 9/10/22	Sun 23/10/22	43SS
39	**Chamber External Side**	**51 days**	**Sat 3/9/22**	**Sun 23/10/22**	
40	North Side - W13	5 days	Sat 3/9/22	Wed 7/9/22	14
41	South Side - W1	5 days	Thu 8/9/22	Mon 12/9/22	15
42	West Side - W19	5 days	Mon 19/9/22	Fri 23/9/22	18
43	East Side	15 days	Sun 9/10/22	Sun 23/10/22	8
44	**Rebar Fixing & Formwork**	**58 days**	**Thu 8/9/22**	**Fri 4/11/22**	
45	North Side - W13	23 days	Thu 8/9/22	Fri 30/9/22	35,40
46	South Side - W1	53 days	Tue 13/9/22	Fri 4/11/22	36,41
47	West Side - W19	33 days	Fri 30/9/22	Tue 1/11/22	37,42
48	**Concreting**	**18 days**	**Thu 29/9/22**	**Sun 16/10/22**	
49	North Side - W13	1 day	Sat 1/10/22	Sat 1/10/22	45
50	South Side - W1	1 day	Sat 5/11/22	Sat 5/11/22	46
51	West Side - W19	1 day	Wed 2/11/22	Wed 2/11/22	47
52	**Wall construction at Penstock Chamber**	**54 days**	**Mon 24/10/22**	**Fri 16/12/22**	
53	External wall	14 days	Mon 24/10/22	Sun 6/11/22	38
54	W29	5 days	Mon 7/11/22	Fri 11/11/22	53
55	W26	5 days	Sat 12/11/22	Wed 16/11/22	54,56
56	W4B & W4C	5 days	Mon 7/11/22	Fri 11/11/22	53
57	W27 & W28	10 days	Thu 17/11/22	Sat 26/11/22	55
58	W24 & W25	10 days	Sun 27/11/22	Tue 6/12/22	57
59	W4A	10 days	Wed 7/12/22	Fri 16/12/22	58
60	**Excavation and installation of CW culvert pipes**	**59 days**	**Sat 15/10/22**	**Mon 12/12/22**	
61	Excavation for CW culverts pipe	14 days	Sat 15/10/22	Fri 28/10/22	
62	Installation of CW culvert pipes	14 days	Thu 10/11/22	Wed 23/11/22	51FS+7 days,61
63	Backfill at west of Intake Chamber	5 days	Thu 24/11/22	Mon 28/11/22	62
64	On grade slab & plinths construction at west of Intake Chamber	14 days	Tue 29/11/22	Mon 12/12/22	63
65	**Construction of trash pit & RC footings for hoist support**	**105 days**	**Wed 16/11/22**	**Tue 28/2/23**	
66	Backfill to bottom level of trash pit at south of Intake Chamber	7 days	Wed 16/11/22	Tue 22/11/22	50FS+10 days
67	RC works for trash pit & hoist support footings	30 days	Wed 23/11/22	Thu 22/12/22	66
68	Backfill to ground level at south of Intake Chamber	7 days	Tue 31/1/23	Mon 6/2/23	67,233FS+10 d
69	On grade slab & plinths construction at south of Intake Chamber	22 days	Tue 7/2/23	Tue 28/2/23	68,206FS+7 da
70	**North Chamber (L12)**	**91 days**	**Fri 23/9/22**	**Thu 22/12/22**	
71	**W11, W12 & W23**	**50 days**	**Fri 23/9/22**	**Fri 11/11/22**	
72	**1st Layer (-5.5mPD to -4.6mPD)**	**20 days**	**Fri 23/9/22**	**Wed 12/10/22**	
73	Scaffold & platform	7 days	Fri 23/9/22	Thu 29/9/22	23
74	Install steel frame for precast panel	8 days	Fri 30/9/22	Fri 7/10/22	73
75	Rebar Fixing Formwork	4 days	Sat 8/10/22	Tue 11/10/22	74
76	Concreting	1 day	Wed 12/10/22	Wed 12/10/22	75
77	**2nd Layer (-4.8mPD to -0.875mPD)**	**10 days**	**Thu 13/10/22**	**Sat 22/10/22**	
78	Scaffold & platform	1 day	Thu 13/10/22	Thu 13/10/22	76
79	Install 1st layer of precast	5 days	Fri 14/10/22	Tue 18/10/22	78
80	Rebar Fixing Formwork	4 days	Tue 18/10/22	Fri 21/10/22	79FS-1 day
81	Concreting	1 day	Sat 22/10/22	Sat 22/10/22	80
82	**3rd Layer (-0.875mPD to 2.65mPD)**	**13 days**	**Sun 23/10/22**	**Fri 4/11/22**	
83	Scaffold & platform	2 days	Sun 23/10/22	Mon 24/10/22	81
84	Install 2nd layer of precast	5 days	Thu 27/10/22	Mon 31/10/22	83,100
85	Rebar Fixing Formwork	4 days	Mon 31/10/22	Thu 3/11/22	84FS-1 day
86	Concreting	1 day	Fri 4/11/22	Fri 4/11/22	85
87	**4th Layer (2.65mPD to 5.7mPD)**	**7 days**	**Sat 5/11/22**	**Fri 11/11/22**	
88	Scaffold & platform	1 day	Sat 5/11/22	Sat 5/11/22	86
89	Install 3rd layer of precast	2 days	Sun 6/11/22	Mon 7/11/22	88
90	Rebar fixing and Formwork	4 days	Mon 7/11/22	Thu 10/11/22	89FS-1 day
91	Concreting	1 day	Fri 11/11/22	Fri 11/11/22	90
92	**W10a-d & W20**	**46 days**	**Fri 30/9/22**	**Mon 14/11/22**	
93	**1st Layer (-5.5mPD to -4.6mPD)**	**13 days**	**Fri 30/9/22**	**Wed 12/10/22**	
94	Scaffold & platform	7 days	Fri 30/9/22	Thu 6/10/22	73
95	Install steel frame for precast panel	2 days	Sat 8/10/22	Sun 9/10/22	74,94
96	Rebar Fixing Formwork	3 days	Sun 9/10/22	Tue 11/10/22	95FS-1 day
97	Concreting	1 day	Wed 12/10/22	Wed 12/10/22	96
98	**2nd Layer (-4.8mPD to -0.375mPD)**	**19 days**	**Thu 13/10/22**	**Mon 31/10/22**	
99	Scaffold & platform	2 days	Thu 13/10/22	Fri 14/10/22	97
100	Install 1st layer of precast	8 days	Wed 19/10/22	Wed 26/10/22	79,99
101	Rebar Fixing Formwork	5 days	Wed 26/10/22	Sun 30/10/22	100FS-1 day
102	Concreting	1 day	Mon 31/10/22	Mon 31/10/22	101
103	**3rd Layer (-0.375mPD to 3.15mPD)**	**8 days**	**Tue 1/11/22**	**Tue 8/11/22**	
104	Scaffold & platform	1 day	Tue 1/11/22	Tue 1/11/22	102
105	Install 2nd layer of precast	4 days	Wed 2/11/22	Sat 5/11/22	84,104
106	Rebar Fixing Formwork	3 days	Sat 5/11/22	Mon 7/11/22	105FS-1 day
107	Concreting	1 day	Tue 8/11/22	Tue 8/11/22	106
108	**4th Layer (3.1mPD to 5.7mPD)**	**6 days**	**Wed 9/11/22**	**Mon 14/11/22**	
109	Scaffold & platform	1 day	Wed 9/11/22	Wed 9/11/22	107
110	Rebar fixing and Formwork	4 days	Thu 10/11/22	Sun 13/11/22	109
111	Concreting	1 day	Mon 14/11/22	Mon 14/11/22	110
112	**Slab at Discharge Valve Chamber at Level +0.5mPD (G.L.1-7)**	**81 days**	**Thu 29/9/22**	**Sun 18/12/22**	
113	Blinding Layer	1 day	Thu 29/9/22	Thu 29/9/22	18,94SS-1 day
114	Rebar Fixing	9 days	Wed 9/11/22	Thu 17/11/22	107,113
115	Concreting	1 day	Fri 18/11/22	Fri 18/11/22	114
116	Builder's Work at Level +0.5mPD	30 days	Sat 19/11/22	Sun 18/12/22	115
117	**Top Slab at Level +7.20mPD (G.L. 5-7)**	**47 days**	**Sun 30/10/22**	**Thu 15/12/22**	
118	Removal of Concrete Block between G.L. 5-7/D-C)	4 days	Sun 30/10/22	Wed 2/11/22	
119	Erection of Soffit Formwork	7 days	Thu 10/11/22	Wed 16/11/22	91FF+2 days,11
120	Rebar Fixing	7 days	Tue 15/11/22	Mon 21/11/22	119SS+5 days
121	Concreting	1 day	Tue 22/11/22	Tue 22/11/22	120
122	Builder's Work at Level +7.2mPD	21 days	Wed 23/11/22	Tue 13/12/22	121
123	Concrete Curing & Archieve Design Concrete Strength	8 days	Wed 23/11/22	Wed 30/11/22	121
124	Removal of Formwork/Falsework, Remaining Concrete block & Site Clearance	15 days	Thu 1/12/22	Thu 15/12/22	123
125	**Ground Beam Along G.L. 7/D & 7/C**	**62 days**	**Fri 21/10/22**	**Wed 21/12/22**	



Project: 19-83014 - No. 5 Intake and Cable Br
Date: 12 Aug 2022
Rev. 8 - Programme for No. 5 C.W. Intake (D

Task
Split
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Progress
Deadline

ID	Task Name	Duration	Start	Finish	Predecessors
126	Plate load test	9 days	Fri 21/10/22	Sat 29/10/22	
127	Excavation	4 days	Tue 8/11/22	Fri 11/11/22	89
128	Blinding Layer	1 day	Sat 12/11/22	Sat 12/11/22	127
129	Rebar Fixing	4 days	Sun 13/11/22	Wed 16/11/22	128
130	Installation of cast in bolts (VO) & erection of Formwork	4 days	Thu 17/11/22	Sun 20/11/22	129
131	Concreting	1 day	Mon 21/11/22	Mon 21/11/22	130
132	Removal of Formwork & Backfilling	10 days	Tue 22/11/22	Thu 1/12/22	131
133	On grade slab & plinths construction at north of Intake Chamber	20 days	Fri 2/12/22	Wed 21/12/22	132
134	Handover L12 Chamber and Discharge Valve Chamber	0 days	Thu 22/12/22	Thu 22/12/22	117FS+1 day,12
135	**Centre Chamber (Spare)**	**100 days**	**Tue 25/10/22**	**Wed 1/2/23**	
136	**W7, W8 & W22**	**48 days**	**Tue 25/10/22**	**Sun 11/12/22**	
137	**1st Layer (-5.5mPD to -4.6mPD)**	**10 days**	**Tue 25/10/22**	**Thu 3/11/22**	
138	Scaffold & platform	2 days	Tue 25/10/22	Wed 26/10/22	83
139	Install steel frame for precast panel	4 days	Thu 27/10/22	Sun 30/10/22	138
140	Rebar Fixing Formwork	3 days	Mon 31/10/22	Wed 2/11/22	139
141	Concreting	1 day	Thu 3/11/22	Thu 3/11/22	140
142	**2nd Layer (-4.8mPD to -0.875mPD)**	**12 days**	**Fri 4/11/22**	**Tue 15/11/22**	
143	Scaffold & platform	2 days	Fri 4/11/22	Sat 5/11/22	141
144	Install 1st layer of precast	3 days	Tue 8/11/22	Thu 10/11/22	89,143
145	Rebar Fixing Formwork	4 days	Fri 11/11/22	Mon 14/11/22	144
146	Concreting	1 day	Tue 15/11/22	Tue 15/11/22	145
147	**3rd Layer (-0.875mPD to 2.65mPD)**	**26 days**	**Wed 16/11/22**	**Sun 11/12/22**	
148	Scaffold & platform	2 days	Wed 16/11/22	Thu 17/11/22	146
149	Install 2nd layer of precast	3 days	Mon 21/11/22	Wed 23/11/22	148,165
150	Rebar Fixing Formwork	4 days	Thu 24/11/22	Sun 27/11/22	149
151	Concreting	1 day	Mon 28/11/22	Mon 28/11/22	150
152	**4th Layer (2.65mPD to 5.7mPD)**	**13 days**	**Tue 29/11/22**	**Sun 11/12/22**	
153	Scaffold & platform	2 days	Tue 29/11/22	Wed 30/11/22	151
154	Install 3rd layer of precast	3 days	Sun 4/12/22	Tue 6/12/22	153,170
155	Rebar fixing and Formwork	4 days	Wed 7/12/22	Sat 10/12/22	154
156	Concreting	1 day	Sun 11/12/22	Sun 11/12/22	155
157	**W6a-b**	**97 days**	**Thu 27/10/22**	**Tue 31/1/23**	
158	**1st Layer (-5.5mPD to -4.6mPD)**	**19 days**	**Thu 27/10/22**	**Mon 14/11/22**	
159	Scaffold & platform	4 days	Thu 27/10/22	Sun 30/10/22	138
160	Install steel frame for precast panel	8 days	Mon 31/10/22	Mon 7/11/22	159
161	Rebar Fixing Formwork	6 days	Tue 8/11/22	Sun 13/11/22	160
162	Concreting	1 day	Mon 14/11/22	Mon 14/11/22	161
163	**2nd Layer (-4.8mPD to -0.375mPD)**	**13 days**	**Tue 15/11/22**	**Sun 27/11/22**	
164	Scaffold & platform	2 days	Tue 15/11/22	Wed 16/11/22	162
165	Install 1st layer of precast	4 days	Thu 17/11/22	Sun 20/11/22	144,164
166	Rebar Fixing Formwork	6 days	Mon 21/11/22	Sat 26/11/22	165
167	Concreting	1 day	Sun 27/11/22	Sun 27/11/22	166
168	**3rd Layer (-0.375mPD to 3.15mPD)**	**13 days**	**Mon 28/11/22**	**Sat 10/12/22**	
169	Scaffold & platform	2 days	Mon 28/11/22	Tue 29/11/22	167
170	Install 2nd layer of precast	4 days	Wed 30/11/22	Sat 3/12/22	149,169
171	Rebar Fixing Formwork	6 days	Sun 4/12/22	Fri 9/12/22	170
172	Concreting	1 day	Sat 10/12/22	Sat 10/12/22	171
173	**4th Layer (3.1mPD to 5.7mPD)**	**11 days**	**Sun 11/12/22**	**Wed 21/12/22**	
174	Scaffold & platform	2 days	Sun 11/12/22	Mon 12/12/22	172
175	Rebar fixing and Formwork	8 days	Tue 13/12/22	Tue 20/12/22	174
176	Concreting	1 day	Wed 21/12/22	Wed 21/12/22	175
177	**Top Slab at Level +7.20mPD (G.L. 3-5)**	**46 days**	**Sat 17/12/22**	**Tue 31/1/23**	
178	Removal of Concrete Block between G.L. 3-5/D-C)	4 days	Sat 17/12/22	Wed 21/12/22	179SF-1 day
179	Erection of Soffit Formwork	7 days	Thu 22/12/22	Wed 28/12/22	156,176
180	Rebar Fixing	9 days	Sun 25/12/22	Mon 2/1/23	179SS+3 days
181	Concreting	1 day	Tue 3/1/23	Tue 3/1/23	180
182	Builder's Work at Level +7.2mPD	28 days	Wed 4/1/23	Tue 31/1/23	181
183	Concrete Curing & Archieve Design Concrete Strength	10 days	Wed 4/1/23	Fri 13/1/23	181
184	Removal of Formwork/Falsework, Remaining Concrete block & Site Clearance	18 days	Sat 14/1/23	Tue 31/1/23	183
185	Installation of GRP	28 days	Wed 4/1/23	Tue 31/1/23	181
186	Handover Spare Chamber	0 days	Wed 1/2/23	Wed 1/2/23	177FS+1 day
187	**South Chamber (L13)**	**99 days**	**Wed 23/11/22**	**Wed 1/3/23**	
188	**W2, W3 & W21**	**42 days**	**Wed 23/11/22**	**Tue 3/1/23**	
189	**1st Layer (-5.5mPD to -4.6mPD)**	**12 days**	**Wed 23/11/22**	**Sun 4/12/22**	
190	Scaffold & platform	4 days	Wed 23/11/22	Sat 26/11/22	121
191	Install steel frame for precast panel	3 days	Sun 27/11/22	Tue 29/11/22	190
192	Rebar Fixing Formwork	4 days	Wed 30/11/22	Sat 3/12/22	191
193	Concreting	1 day	Sun 4/12/22	Sun 4/12/22	192
194	**2nd Layer (-4.8mPD to -0.875mPD)**	**10 days**	**Mon 5/12/22**	**Wed 14/12/22**	
195	Scaffold & platform	2 days	Mon 5/12/22	Tue 6/12/22	193
196	Install 1st layer of precast	3 days	Wed 7/12/22	Fri 9/12/22	195
197	Rebar Fixing Formwork	4 days	Sat 10/12/22	Tue 13/12/22	196
198	Concreting	1 day	Wed 14/12/22	Wed 14/12/22	197
199	**3rd Layer (-0.875mPD to 2.65mPD)**	**20 days**	**Thu 15/12/22**	**Tue 3/1/23**	
200	Scaffold & platform	2 days	Thu 15/12/22	Fri 16/12/22	198
201	Install 2nd layer of precast	3 days	Sat 17/12/22	Mon 19/12/22	200,217
202	Rebar Fixing Formwork	4 days	Tue 20/12/22	Fri 23/12/22	201
203	Concreting	1 day	Sat 24/12/22	Sat 24/12/22	202
204	**4th Layer (2.65mPD to 5.7mPD)**	**10 days**	**Sun 25/12/22**	**Tue 3/1/23**	
205	Scaffold & platform	2 days	Sun 25/12/22	Mon 26/12/22	203
206	Install 3rd layer of precast	3 days	Tue 27/12/22	Thu 29/12/22	205,222
207	Rebar fixing and Formwork	4 days	Fri 30/12/22	Mon 2/1/23	206
208	Concreting	1 day	Tue 3/1/23	Tue 3/1/23	207
209	**W6c-d**	**95 days**	**Sun 27/11/22**	**Wed 1/3/23**	
210	**1st Layer (-5.5mPD to -4.6mPD)**	**11 days**	**Sun 27/11/22**	**Wed 7/12/22**	
211	Scaffold & platform	2 days	Sun 27/11/22	Mon 28/11/22	190
212	Install steel frame for precast panel	4 days	Tue 29/11/22	Fri 2/12/22	211
213	Rebar Fixing Formwork	4 days	Sat 3/12/22	Tue 6/12/22	212
214	Concreting	1 day	Wed 7/12/22	Wed 7/12/22	213
215	**2nd Layer (-4.8mPD to -0.375mPD)**	**11 days**	**Thu 8/12/22**	**Sun 18/12/22**	
216	Scaffold & platform	2 days	Thu 8/12/22	Fri 9/12/22	214
217	Install 1st layer of precast	4 days	Sat 10/12/22	Tue 13/12/22	196,216
218	Rebar Fixing Formwork	4 days	Wed 14/12/22	Sat 17/12/22	217
219	Concreting	1 day	Sun 18/12/22	Sun 18/12/22	218
220	**3rd Layer (-0.375mPD to 3.15mPD)**	**11 days**	**Mon 19/12/22**	**Thu 29/12/22**	
221	Scaffold & platform	2 days	Mon 19/12/22	Tue 20/12/22	219
222	Install 2nd layer of precast	4 days	Wed 21/12/22	Sat 24/12/22	201,221
223	Rebar Fixing Formwork	4 days	Sun 25/12/22	Wed 28/12/22	222
224	Concreting	1 day	Thu 29/12/22	Thu 29/12/22	223
225	**4th Layer (3.1mPD to 5.7mPD)**	**9 days**	**Fri 30/12/22**	**Sat 7/1/23**	
226	Scaffold & platform	2 days	Fri 30/12/22	Sat 31/12/22	224
227	Rebar fixing and Formwork	6 days	Sun 1/1/23	Fri 6/1/23	226
228	Concreting	1 day	Sat 7/1/23	Sat 7/1/23	227
229	**Top Slab at Level +7.20mPD (G.L. 1-3)**	**41 days**	**Sun 8/1/23**	**Fri 17/2/23**	
230	Removal of Concrete Block between G.L. 1-3/D-C)	4 days	Sun 15/1/23	Wed 18/1/23	231SF-1 day
231	Erection of Soffit Formwork	7 days	Sun 8/1/23	Sat 14/1/23	208,228
232	Rebar Fixing	9 days	Wed 11/1/23	Thu 19/1/23	231SS+3 days
233	Concreting	1 day	Fri 20/1/23	Fri 20/1/23	232
234	Builder's Work at Level +7.2mPD	28 days	Sat 21/1/23	Fri 17/2/23	233
235	Concrete Curing & Archieve Design Concrete Strength	10 days	Sat 21/1/23	Mon 30/1/23	233
236	Removal of Formwork/Falsework, Remaining Concrete block & Site Clearance	15 days	Tue 31/1/23	Tue 14/2/23	235
237	Installation of GRP	20 days	Sat 21/1/23	Thu 9/2/23	233
238	Handover L13 Chamber	0 days	Wed 1/3/23	Wed 1/3/23	229FS+1 day,6



Project: 19-83014 - No. 5 Intake and Cable Br
Date: 12 Aug 2022
Rev. 8 - Programme for No. 5 C.W. Intake (D

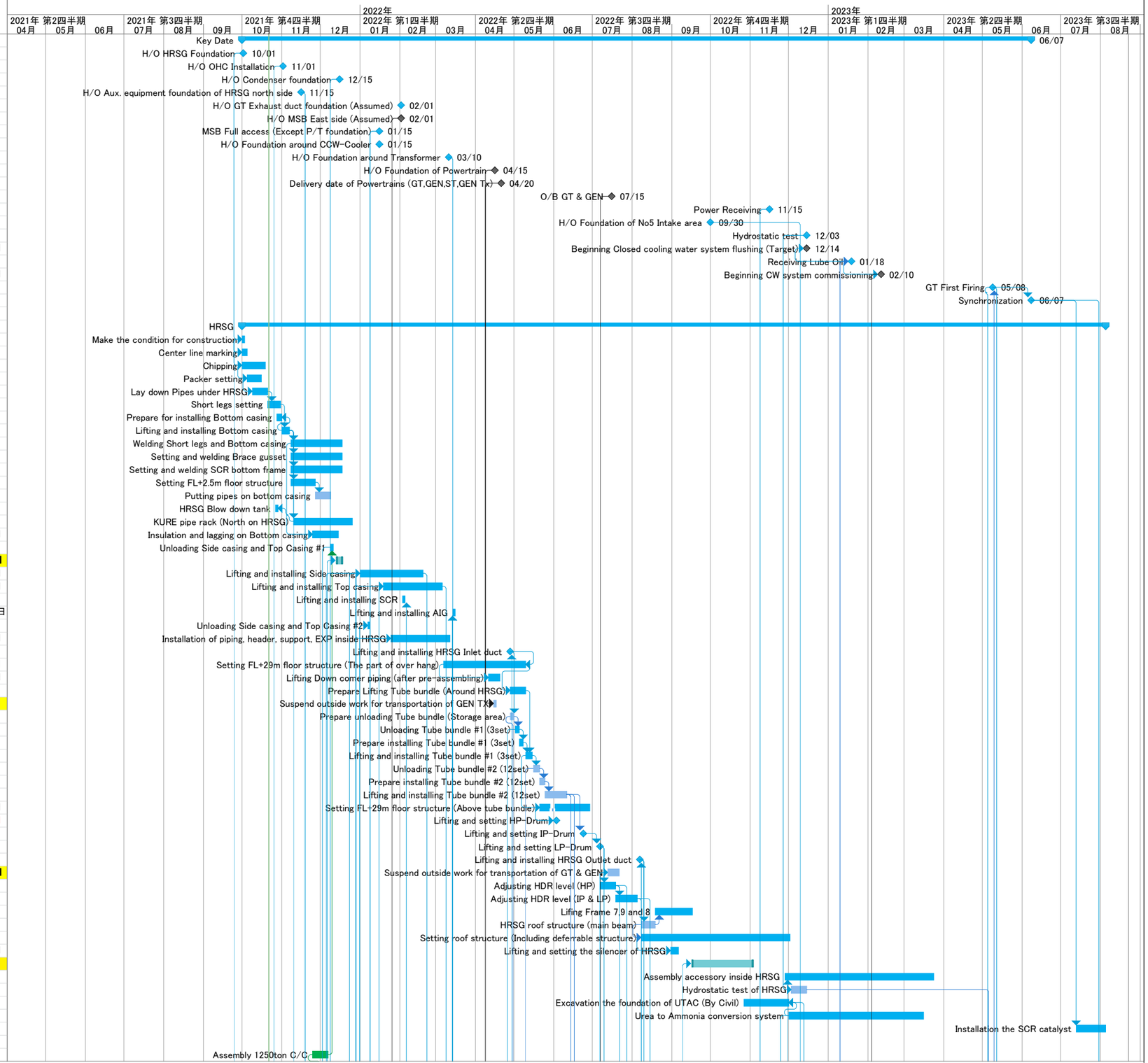
Task
Split
Milestone
Summary
Project Summary
External Tasks
External Milestone
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
Progress
Deadline

TAIHEI DENGYO KAISHA,LTD.

Construction Schedule of Unit-12

20th-Oct-2021
Rev.5a

ID	タスク名	期間	開始日	終了日	先行タスク
1	**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)	
3	H/O OHC Installation	1日	21/11/01 (月)	21/11/01 (月)	
4	H/O Condenser foundation	1日	21/12/15 (水)	21/12/15 (水)	
5	H/O Aux. equipment foundation of HRSG north side	1日	21/11/15 (月)	21/11/15 (月)	
6	H/O GT Exhaust duct foundation (Assumed)	1日	22/02/01 (火)	22/02/01 (火)	
7	H/O MSB East side (Assumed)	1日	22/02/01 (火)	22/02/01 (火)	
8	MSB Full access (Except P/T foundation)	1日	22/01/15 (土)	22/01/15 (土)	
9	H/O Foundation around CCW-Cooler	1日	22/01/15 (土)	22/01/15 (土)	
10	H/O Foundation around Transformer	1日	22/03/10 (木)	22/03/10 (木)	
11	H/O Foundation of Powertrain	1日	22/04/15 (金)	22/04/15 (金)	
12	Delivery date of Powertrains (GT,GEN,ST,GEN Tx)	5日	22/04/15 (金)	22/04/20 (水)	
13	O/B GT & GEN	1日	22/07/15 (金)	22/07/15 (金)	
14	Power Receiving	1日	22/11/15 (火)	22/11/15 (火)	
15	H/O Foundation of No5 Intake area	1日	22/09/30 (金)	22/09/30 (金)	
16	Hydrostatic test	10日	22/12/03 (土)	22/12/14 (水)	
17	Beginning Closed cooling water system flushing (Target)	1日	22/12/14 (水)	22/12/14 (水)	18SS-30日
18	Receiving Lube Oil	1日	23/01/18 (水)	23/01/18 (水)	208SS
19	Beginning CW system commissioning	1日	23/02/10 (金)	23/02/10 (金)	18SS+20日
20	GT First Firing	1日	23/05/08 (月)	23/05/08 (月)	213
21	Synchronization	1日	23/06/07 (水)	23/06/07 (水)	20FS+25日
22					
23	**HRSG**	**577日**	**21/10/01 (金)**	**23/08/04 (金)**	
24	Make the condition for construction	2日	21/10/01 (金)	21/10/02 (土)	2SS
25	Center line marking	3日	21/10/01 (金)	21/10/04 (月)	24SS
26	Chipping	15日	21/10/01 (金)	21/10/18 (月)	24SS
27	Packer setting	10日	21/10/05 (火)	21/10/15 (金)	26SS+3日
28	Lay down Pipes under HRSG	10日	21/10/09 (土)	21/10/20 (水)	27SS+4日
29	Short legs setting	9日	21/10/21 (木)	21/10/30 (土)	28
30	Prepare for installing Bottom casing	3日	21/10/28 (木)	21/11/01 (月)	31SF
31	Lifting and installing Bottom casing	6日	21/11/01 (月)	21/11/06 (土)	29
32	Welding Short legs and Bottom casing	35日	21/11/08 (月)	21/12/17 (金)	31
33	Setting and welding Brace gusset	35日	21/11/08 (月)	21/12/17 (金)	31
34	Setting and welding SCR bottom frame	35日	21/11/08 (月)	21/12/17 (金)	31
35	Setting FL+2.5m floor structure	17日	21/11/08 (月)	21/11/26 (金)	31
36	Putting pipes on bottom casing	10日	21/11/27 (土)	21/12/08 (水)	35
37	HRSG Blow down tank	2日	21/10/27 (水)	21/10/29 (金)	38SF-10日
38	KURE pipe rack (North on HRSG)	40日	21/11/10 (水)	21/12/25 (土)	31FS+2日
39	Insulation and lagging on Bottom casing	17日	21/11/25 (木)	21/12/14 (火)	32SS+15日
40	**Unloading Side casing and Top Casing #1**	**2日**	**21/12/09 (木)**	**21/12/10 (金)**	**79FS+2日**
41	**Suspend lifting work because of delivery condenser**	**4日**	**21/12/14 (火)**	**21/12/17 (金)**	**142SS-1日**
42	Lifting and installing Side casing	42日	22/01/01 (土)	22/02/18 (金)	94SS+20日
43	Lifting and installing Top casing	40日	22/01/19 (水)	22/03/05 (土)	42SS+15日
44	Lifting and installing SCR	2日	22/02/03 (木)	22/02/04 (金)	99
45	Lifting and installing AIG	2日	22/03/14 (月)	22/03/15 (火)	101FS+10日
46	**Unloading Side casing and Top Casing #2**	**1日**	**22/01/07 (金)**	**22/01/07 (金)**	**96SS-1日**
47	Installation of piping, header, support, EXP inside HRSG	40日	22/01/25 (火)	22/03/11 (金)	42SS+20日
48	Lifting and installing HRSG Inlet duct	2日	22/04/26 (火)	22/04/27 (水)	103
49	Setting FL+29m floor structure (The part of over hang)	55日	22/03/07 (月)	22/05/09 (月)	48FF+10日
50	Lifting Down comer piping (after pre-assembling)	8日	22/04/11 (月)	22/04/19 (火)	49SS+30日
51	Prepare Lifting Tube bundle (Around HRSG)	10日	22/04/28 (木)	22/05/09 (月)	49FS-10日
52	**Suspend outside work for transportation of GEN TX**	**2日**	**22/04/15 (金)**	**22/04/16 (土)**	**12SS**
53	Prepare unloading Tube bundle (Storage area)	3日	22/04/28 (木)	22/04/30 (土)	48
54	**Unloading Tube bundle #1 (3set)**	**3日**	**22/05/02 (月)**	**22/05/04 (水)**	**53**
55	Prepare installing Tube bundle #1 (3set)	3日	22/05/05 (木)	22/05/07 (土)	54
56	**Lifting and installing Tube bundle #1 (3set)**	**5日**	**22/05/10 (火)**	**22/05/14 (土)**	**55,51**
57	**Unloading Tube bundle #2 (12set)**	**5日**	**22/05/16 (月)**	**22/05/20 (金)**	**56**
58	Prepare installing Tube bundle #2 (12set)	3日	22/05/21 (土)	22/05/24 (火)	57
59	**Lifting and installing Tube bundle #2 (12set)**	**15日**	**22/05/25 (水)**	**22/06/10 (金)**	**58**
60	Setting FL+29m floor structure (Above tube bundle)	30日	22/05/21 (土)	22/06/28 (火)	56SS+10日
61	Lifting and setting HP-Drum	1日	22/06/02 (木)	22/06/02 (木)	60SS+10日
62	Lifting and setting IP-Drum	1日	22/06/23 (木)	22/06/23 (木)	59FS+10日
63	Lifting and setting LP-Drum	1日	22/07/06 (水)	22/07/06 (水)	62FS+10日
64	Lifting and installing HRSG Outlet duct	2日	22/08/05 (金)	22/08/06 (土)	105
65	**Suspend outside work for transportation of GT & GEN**	**8日**	**22/07/13 (水)**	**22/07/21 (木)**	**186SS-2日**
66	Adjusting HDR level (HP)	10日	22/07/07 (木)	22/07/18 (月)	63
67	Adjusting HDR level (IP & LP)	15日	22/07/19 (火)	22/08/04 (木)	66
68	Lifing Frame 7,9 and 8	25日	22/08/19 (金)	22/09/16 (金)	69
69	HRSG roof structure (main beam)	10日	22/08/08 (月)	22/08/18 (木)	64
70	Setting roof structure (Including deferrable structure)	100日	22/08/08 (月)	22/12/01 (木)	69SS
71	Lifting and setting the silencer of HRSG	5日	22/08/31 (水)	22/09/05 (月)	70SS+20日
72	1250ton shift to lifting work of GT Inlet duct	40日	22/09/17 (土)	22/11/02 (水)	220SS
73	Assembly accessory inside HRSG	100日	22/11/28 (月)	23/03/23 (木)	87
74	**Hydrostatic test of HRSG**	**10日**	**22/12/03 (土)**	**22/12/14 (水)**	**16SS**
75	Excavation the foundation of UTAC (By Civil)	30日	22/10/27 (木)	22/12/01 (木)	76SF
76	Urea to Ammonia conversion system	90日	22/12/01 (木)	23/03/15 (水)	
77	Installation the SCR catalyst	20日	23/07/13 (木)	23/08/04 (金)	21FS+30日
78					
79	Assembly 1250ton C/C	10日	21/11/25 (木)	21/12/06 (月)	



NOTE

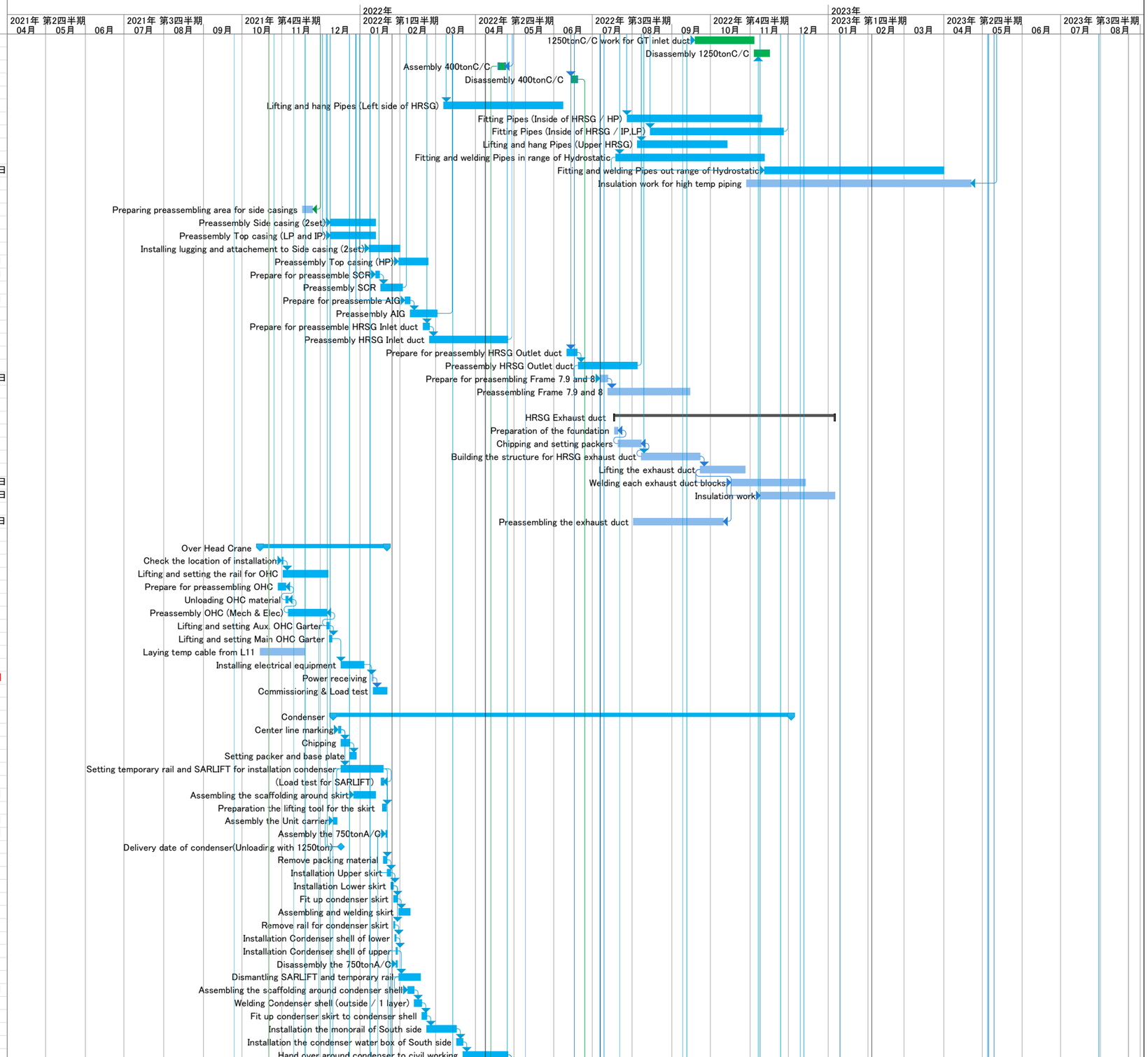
1. The key date is subjected in the KOM held on 30th-Sep.
2. The east area on the MSB is assumed to be handovered before B-Feb-2022 according to the above key date changed.
3. Considered the affection of KURE's schedule belows;
   i) Because of delaying the side casing,installation Inlet duct is postponed.
   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.

Construction Schedule of Unit-12

20th-Oct-2021
Rev.5a

ID		タスク名	期間	開始日	終了日	先行タスク
80		1250tonC/C work for GT inlet duct	40日	22/09/19 (月)	22/11/03 (木)	220SS
81		Disassembly 1250tonC/C	10日	22/11/04 (金)	22/11/15 (火)	220
82		Assembly 400tonC/C	5日	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
84						
85		Lifting and hang Pipes (Left side of HRSG)	80日	22/03/07 (月)	22/06/07 (火)	43
86		Fitting Pipes (Inside of HRSG / HP)	90日	22/07/28 (木)	22/11/09 (水)	66FS+8日
87		Fitting Pipes (Inside of HRSG / IP,LP)	90日	22/08/15 (月)	22/11/26 (土)	67FS+8日
88		Lifting and hang Pipes (Upper HRSG)	60日	22/08/05 (金)	22/10/13 (木)	67
89		Fitting and welding Pipes in range of Hydrostatic	100日	22/07/19 (火)	22/11/11 (金)	66
90		Fitting and welding Pipes out range of Hydrostatic	120日	22/11/12 (土)	23/03/31 (金)	89SS+100日
91		Insulation work for high temp piping	150日	22/10/29 (土)	23/04/21 (金)	20FF-14日
92						
93		Preparing preassembling area for side casings	7日	21/11/17 (水)	21/11/25 (木)	79SF
94		Preassembly Side casing (2set)	30日	21/12/09 (木)	22/01/12 (水)	40SS
95		Preassembly Top casing (LP and IP)	30日	21/12/09 (木)	22/01/12 (水)	94SS
96		Installing lugging and attachement to Side casing (2set)	20日	22/01/08 (土)	22/01/31 (月)	42SS+6日
97		Preassembly Top casing (HP)	20日	22/01/31 (月)	22/02/22 (火)	43SS+10日
98		Prepare for preassemble SCR	3日	22/01/13 (木)	22/01/15 (土)	42SS+10日
99		Preassembly SCR	15日	22/01/17 (月)	22/02/02 (水)	98
100		Prepare for preassemble AIG	3日	22/02/05 (土)	22/02/08 (火)	42SS+30日
101		Preassembly AIG	18日	22/02/09 (水)	22/03/01 (火)	100
102		Prepare for preassemble HRSG Inlet duct	4日	22/02/19 (土)	22/02/23 (水)	42
103		Preassembly HRSG Inlet duct	52日	22/02/24 (木)	22/04/25 (月)	102
104		Prepare for preassembly HRSG Outlet duct	7日	22/06/11 (土)	22/06/18 (土)	59
105		Preassembly HRSG Outlet duct	40日	22/06/20 (月)	22/08/04 (木)	104
106		Prepare for preasembling Frame 7.9 and 8	5日	22/07/07 (木)	22/07/12 (火)	105SS+15日
107		Preassembling Frame 7.9 and 8	55日	22/07/13 (水)	22/09/14 (水)	106
108						
109		**HRSG Exhaust duct**	**148日**	**22/07/18 (月)**	**23/01/05 (木)**	
110		Preparation of the foundation	3日	22/07/18 (月)	22/07/21 (木)	111SF
111		Chipping and setting packers	15日	22/07/21 (木)	22/08/08 (月)	112SF
112		Building the structure for HRSG exhaust duct	40日	22/08/08 (月)	22/09/22 (木)	64
113		Lifting the exhaust duct	30日	22/09/23 (金)	22/10/27 (木)	112
114		Welding each exhaust duct blocks	50日	22/10/17 (月)	22/12/13 (火)	113SS+20日
115		Insulation work	50日	22/11/09 (水)	23/01/05 (木)	114SS+20日
116						
117		Preassembling the exhaust duct	60日	22/08/02 (火)	22/10/10 (月)	113SF+15日
118						
119		**Over Head Crane**	**85日**	**21/10/15 (金)**	**22/01/21 (金)**	
120		Check the location of installation	1日	21/11/01 (月)	21/11/01 (月)	3SS
121		Lifting and setting the rail for OHC	30日	21/11/02 (火)	21/12/06 (月)	120
122		Prepare for preassembling OHC	5日	21/10/29 (金)	21/11/04 (木)	123SF
123		**Unloading OHC material**	**2日**	**21/11/04 (木)**	**21/11/06 (土)**	**124SF**
124		Preassembly OHC (Mech & Elec)	25日	21/11/06 (土)	21/12/06 (月)	125SF
125		**Lifting and setting Aux. OHC Garter**	**2日**	**21/12/06 (月)**	**21/12/07 (火)**	
126		**Lifting and setting Main OHC Garter**	**2日**	**21/12/08 (水)**	**21/12/09 (木)**	**125**
127		Laying temp cable from L11	30日	21/10/15 (金)	21/11/18 (木)	
128		Installing electrical equipment	15日	21/12/17 (金)	22/01/03 (月)	126FS+6日
129		**Power receiving**	**1日**	**22/01/10 (月)**	**22/01/10 (月)**	**128FS+5日**
130		Commissioning & Load test	10日	22/01/11 (火)	22/01/21 (金)	129
131						
132		**Condenser**	**306日**	**21/12/11 (土)**	**22/12/02 (金)**	
133		Center line marking	2日	21/12/15 (水)	21/12/16 (木)	4SS
134		Chipping	6日	21/12/17 (金)	21/12/23 (木)	133
135		Setting packer and base plate	4日	21/12/24 (金)	21/12/28 (火)	134
136		Setting temporary rail and SARLIFT for installation conde	28日	21/12/17 (金)	22/01/18 (火)	133
137		(Load test for SARLIFT)	1日	22/01/18 (火)	22/01/18 (火)	136FF
138		Assembling the scaffolding around skirt	15日	21/12/27 (月)	22/01/12 (水)	136SS+8日
139		Preparation the lifting tool for the skirt	2日	22/01/19 (水)	22/01/20 (木)	136
140		Assembly the Unit carrier	2日	21/12/11 (土)	21/12/13 (月)	142SS-3日
141		Assembly the 750tonA/C	1日	22/01/21 (金)	22/01/21 (金)	144SS-1日
142		**Delivery date of condenser(Unloading with 1250ton)**	**2日**	**21/12/15 (水)**	**21/12/16 (木)**	
143		Remove packing material	3日	22/01/19 (水)	22/01/21 (金)	137
144		Installation Upper skirt	2日	22/01/22 (土)	22/01/24 (月)	143
145		Installation Lower skirt	2日	22/01/25 (火)	22/01/26 (水)	144
146		Fit up condenser skirt	3日	22/01/27 (木)	22/01/29 (土)	145
147		Assembling and welding skirt	8日	22/01/31 (月)	22/02/08 (火)	146
148		Remove rail for condenser skirt	1日	22/01/27 (木)	22/01/27 (木)	145
149		Installation Condenser shell of lower	1日	22/01/28 (金)	22/01/28 (金)	148
150		Installation Condenser shell of upper	1日	22/01/29 (土)	22/01/29 (土)	149
151		Disassembly the 750tonA/C	1日	22/01/29 (土)	22/01/29 (土)	150SS
152		Dismantling SARLIFT and temporary rail	15日	22/01/31 (月)	22/02/16 (水)	150
153		Assembling the scaffolding around condenser shell	5日	22/02/07 (月)	22/02/11 (金)	152SS+6日
154		Welding Condenser shell (outside / 1 layer)	5日	22/02/12 (土)	22/02/17 (木)	153
155		Fit up condenser skirt to condenser shell	3日	22/02/18 (金)	22/02/21 (月)	154
156		Installation the monorail of South side	20日	22/02/22 (火)	22/03/16 (水)	155
157		Installation the condenser water box of South side	4日	22/03/17 (木)	22/03/21 (月)	156
158		**Hand over around condenser to civil working**	**30日**	**22/03/22 (火)**	**22/04/25 (月)**	**157**



NOTE

1. The key date is subjected in the KOM held on 30th-Sep.
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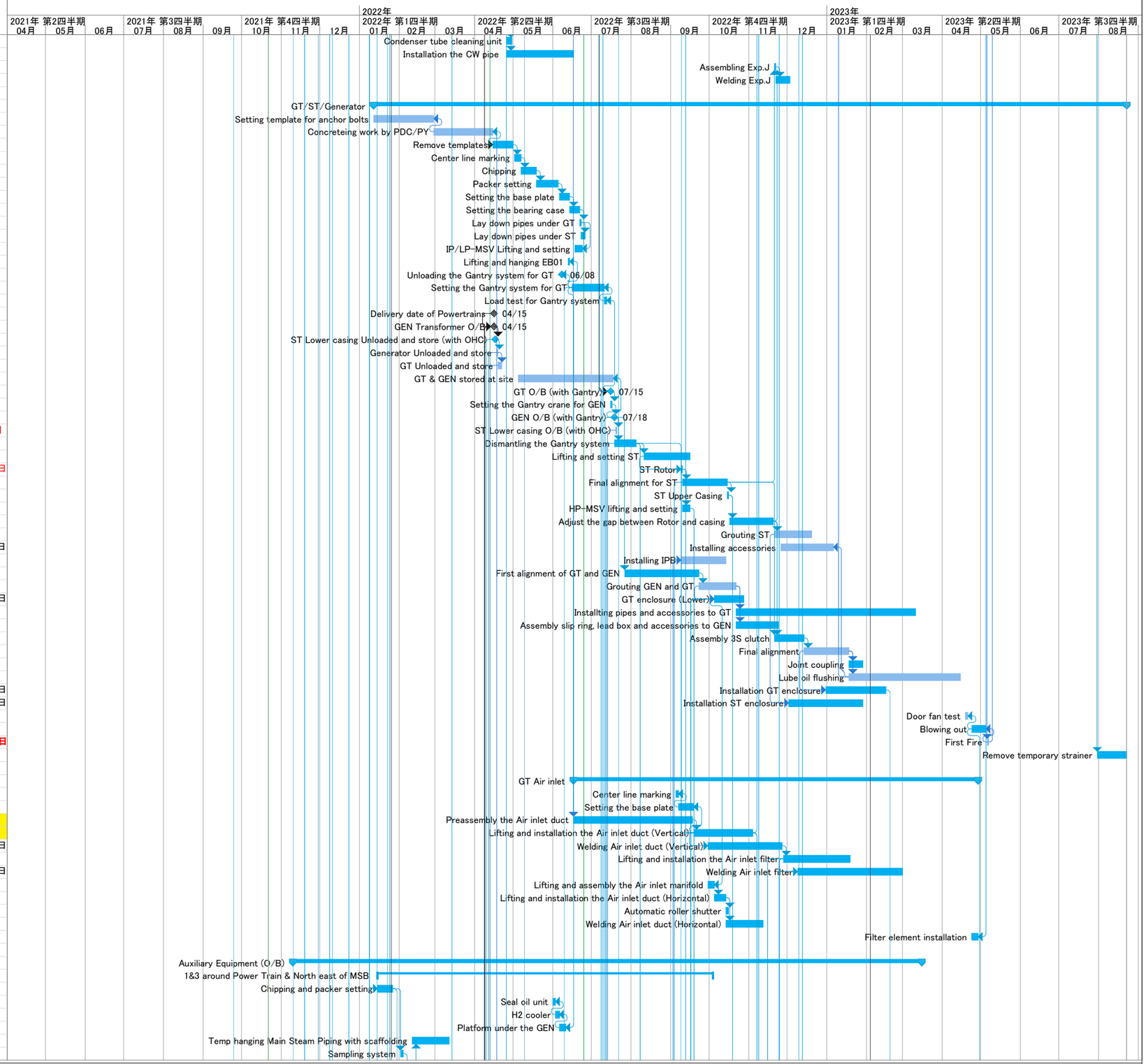
3. Considered the affection of KURE's schedule belows;
   i) Because of delaying the side casing,installation Inlet duct is postponed.
   ii) Because of delivery 12 TBs in one time, no enough area for pre-ass'y Outlet duct and GT Inlet duct on schedule.

TAIHEI DENGYO KAISHA,LTD.

Construction Schedule of Unit-12

20th-Oct-2021
Rev.5a

ID		タスク名	期間	開始日	終了日	先行タスク
159		Condenser tube cleaning unit	4日	22/04/26 (火)	22/04/29 (金)	158
160		Installation the CW pipe	45日	22/04/26 (火)	22/06/16 (木)	158
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)	161
163						
164		**GT/ST/Generator**	**504日**	**22/01/12 (水)**	**23/08/22 (火)**	
165		Setting template for anchor bolts	40日	22/01/12 (水)	22/02/28 (月)	166SF
166		Concreteing work by PDC/PY	40日	22/02/28 (月)	22/04/15 (金)	167SF
167		**Remove templates**	**14日**	**22/04/15 (金)**	**22/04/30 (土)**	**11SS**
168		Center line marking	5日	22/05/02 (月)	22/05/06 (金)	167
169		Chipping	10日	22/05/07 (土)	22/05/18 (水)	168
170		Packer setting	15日	22/05/19 (木)	22/06/04 (土)	169
171		Setting the base plate	7日	22/06/06 (月)	22/06/13 (月)	170
172		Setting the bearing case	7日	22/06/14 (火)	22/06/21 (火)	171
173		Lay down pipes under GT	1日	22/06/22 (水)	22/06/22 (水)	172
174		Lay down pipes under ST	3日	22/06/23 (木)	22/06/25 (土)	173
175		IP/LP-MSV Lifting and setting	5日	22/06/18 (土)	22/06/23 (木)	173FF+1日
176		Lifting and hanging EB01	1日	22/06/13 (月)	22/06/14 (火)	178SF-2日
177		Unloading the Gantry system for GT	1日	22/06/07 (火)	22/06/08 (水)	178SF-7日
178		Setting the Gantry system for GT	21日	22/06/16 (木)	22/07/11 (月)	179SF
179		Load test for Gantry system	2日	22/07/11 (月)	22/07/13 (水)	186SF-2日
180		**Delivery date of Powertrains**	**1日**	**22/04/15 (金)**	**22/04/15 (金)**	
181		**GEN Transformer O/B**	**1日**	**22/04/15 (金)**	**22/04/15 (金)**	**180SS**
182		ST Lower casing Unloaded and store (with OHC)	1日	22/04/16 (土)	22/04/16 (土)	181
183		Generator Unloaded and store	1日	22/04/18 (月)	22/04/18 (月)	182
184		GT Unloaded and store	3日	22/04/19 (火)	22/04/21 (木)	183
185		GT & GEN stored at site	63日	22/05/05 (木)	22/07/18 (月)	188SF
186		**GT O/B (with Gantry)**	**1日**	**22/07/15 (金)**	**22/07/15 (金)**	**13SS**
187		Setting the Gantry crane for GEN	1日	22/07/16 (土)	22/07/16 (土)	186
188		**GEN O/B (with Gantry)**	**1日**	**22/07/18 (月)**	**22/07/18 (月)**	**187**
189		**ST Lower casing O/B (with OHC)**	**1日**	**22/07/20 (水)**	**22/07/20 (水)**	**188FS+1日**
190		Dismantling the Gantry system	15日	22/07/19 (火)	22/08/04 (木)	188
191		Lifting and setting ST	31日	22/08/11 (木)	22/09/15 (木)	190FS+5日
192		ST Rotor	1日	22/09/09 (金)	22/09/09 (金)	191SS+25日
193		Final alignment for ST	30日	22/09/10 (土)	22/10/14 (金)	192
194		ST Upper Casing	1日	22/10/15 (土)	22/10/15 (土)	193
195		HP-MSV lifting and setting	5日	22/09/10 (土)	22/09/15 (木)	192
196		Adjust the gap between Rotor and casing	30日	22/10/17 (月)	22/11/19 (土)	194
197		Grouting ST	25日	22/11/21 (月)	22/12/19 (月)	196
198		Installing accessories	35日	22/11/26 (土)	23/01/06 (金)	208SF-10日
199		Installing IPB	30日	22/09/09 (金)	22/10/13 (木)	261SS
200		First alignment of GT and GEN	50日	22/07/27 (水)	22/09/22 (木)	188FS+7日
201		Grouting GEN and GT	25日	22/09/23 (金)	22/10/21 (金)	200
202		GT enclosure (Lower)	20日	22/10/05 (水)	22/10/27 (木)	201SS+10日
203		Installting pipes and accessories to GT	120日	22/10/22 (土)	23/03/10 (金)	201
204		Assembly slip ring, lead box and accessories to GEN	28日	22/10/22 (土)	22/11/23 (水)	201
205		Assembly 3S clutch	20日	22/11/21 (月)	22/12/13 (火)	193,196
206		Final alignment	30日	22/12/14 (水)	23/01/17 (火)	205
207		Joint coupling	10日	23/01/18 (水)	23/01/28 (土)	206
208		Lube oil flushing	75日	23/01/18 (水)	23/04/14 (金)	206
209		Installation GT enclosure	40日	22/12/31 (土)	23/02/15 (水)	206SS+15日
210		Installation ST enclosure	50日	22/12/02 (金)	23/01/28 (土)	197SS+10日
211		Door fan test	2日	23/04/19 (水)	23/04/21 (金)	212SF-2日
212		Blowing out	10日	23/04/24 (月)	23/05/05 (金)	213SF-1日
213		**First Fire**	**1日**	**23/05/06 (土)**	**23/05/06 (土)**	**74FS+122日**
214		Remove temporary strainer	20日	23/07/31 (月)	23/08/22 (火)	21FS+45日
215						
216		**GT Air inlet**	**271日**	**22/06/17 (金)**	**23/04/29 (土)**	
217		Center line marking	2日	22/09/05 (月)	22/09/07 (水)	218SF
218		Setting the base plate	10日	22/09/07 (水)	22/09/19 (月)	220SF
219		Preassembly the Air inlet duct	80日	22/06/17 (金)	22/09/17 (土)	59FS+5日
220		**Lifting and installation the Air inlet duct (Vertical)**	**40日**	**22/09/19 (月)**	**22/11/03 (木)**	**219**
221		Welding Air inlet duct (Vertical)	50日	22/09/30 (金)	22/11/26 (土)	220SS+10日
222		Lifting and installation the Air inlet filter	45日	22/11/28 (月)	23/01/18 (水)	221
223		Welding Air inlet filter	70日	22/12/09 (金)	23/02/28 (火)	222SS+10日
224		Lifting and assembly the Air inlet manifold	4日	22/09/30 (金)	22/10/05 (水)	202SF
225		Lifting and installation the Air inlet duct (Horizontal)	8日	22/10/05 (水)	22/10/13 (木)	224
226		Automatic roller shutter	2日	22/10/14 (金)	22/10/15 (土)	225
227		Welding Air inlet duct (Horizontal)	25日	22/10/14 (金)	22/11/11 (金)	225
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)**	
231		**1&3 around Power Train & North east of MSB**	**224日**	**22/01/15 (土)**	**22/10/03 (月)**	
232		Chipping and packer setting	10日	22/01/15 (土)	22/01/26 (水)	8SS
233		Seal oil unit	2日	22/06/01 (水)	22/06/03 (金)	234SF
234		H2 cooler	2日	22/06/03 (金)	22/06/06 (月)	235SF
235		Platform under the GEN	5日	22/06/06 (月)	22/06/11 (土)	178SF-4日
236		Temp hanging Main Steam Piping with scaffolding	25日	22/02/11 (金)	22/03/11 (金)	240
237		Sampling system	2日	22/02/02 (水)	22/02/03 (木)	232FS+5日



NOTE

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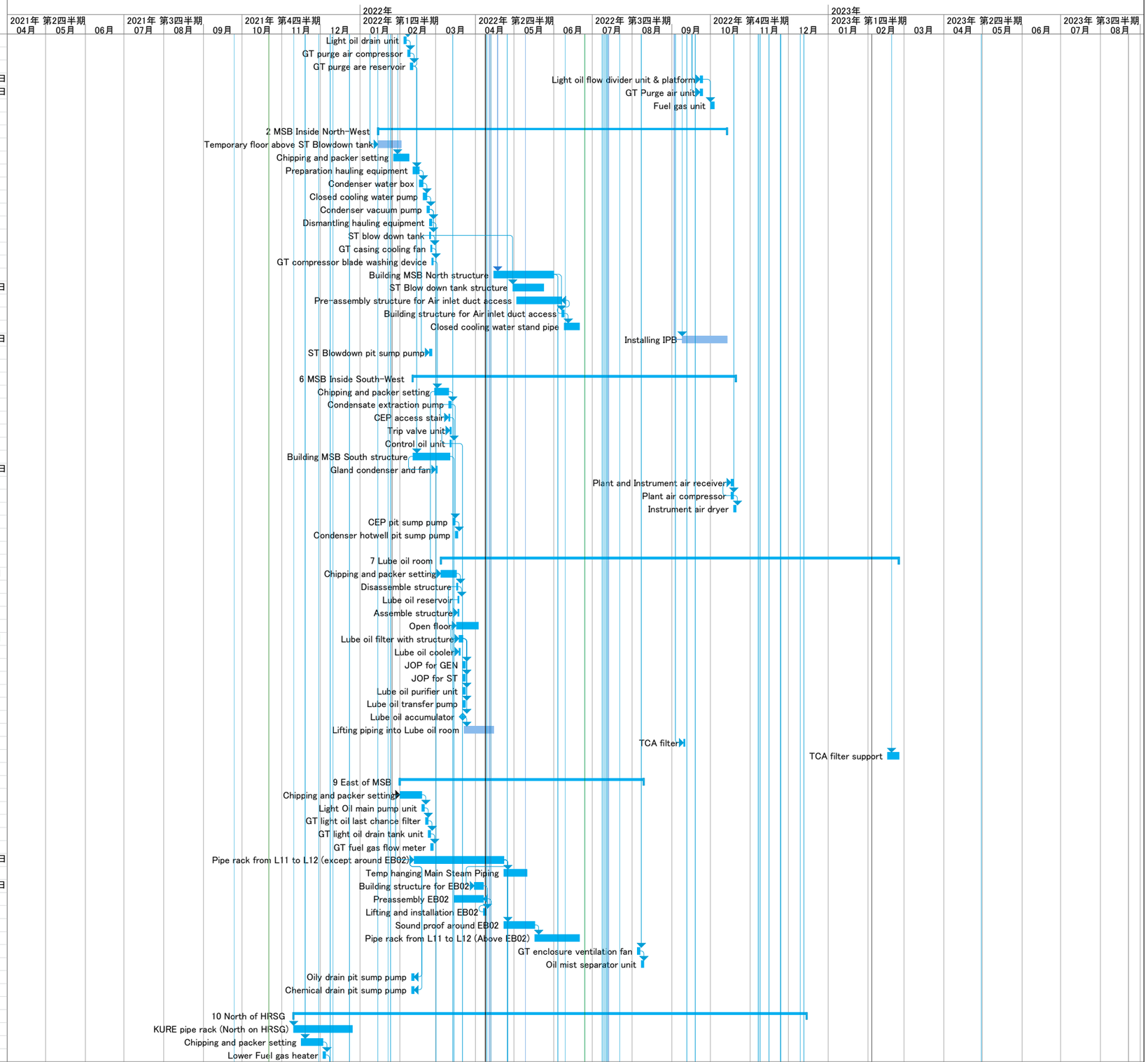
3. Considered the affection of KURE's schedule belows;
   i) Because of delaying the side casing,installation Inlet duct is postponed.
   ii) Because of delivery 12 TBs in one time, no enough area for pre-ass'y Outlet duct and GT Inlet duct on schedule.

TAIHEI DENGYO KAISHA,LTD.

Construction Schedule of Unit-12

20th-Oct-2021
Rev.5a

ID		タスク名	期間	開始日	終了日	先行タスク
238		Light oil drain unit	2日	22/02/04 (金)	22/02/05 (土)	237
239		GT purge air compressor	2日	22/02/07 (月)	22/02/08 (火)	238
240		GT purge are reservoir	2日	22/02/09 (水)	22/02/10 (木)	239
241		Light oil flow divider unit & platform	2日	22/09/23 (金)	22/09/24 (土)	202SS-10日
242		GT Purge air unit	2日	22/09/23 (金)	22/09/24 (土)	202SS-10日
243		Fuel gas unit	2日	22/10/01 (土)	22/10/03 (月)	241FS+5日
244						
245		**2 MSB Inside North-West**	**233日?**	**22/01/15 (土)**	**22/10/13 (木)**	
246		Temporary floor above ST Blowdown tank	15日	22/01/15 (土)	22/02/01 (火)	8SS
247		Chipping and packer setting	10日	22/01/27 (木)	22/02/07 (月)	232
248		Preparation hauling equipment	4日	22/02/11 (金)	22/02/15 (火)	240
249		Condenser water box	3日	22/02/16 (水)	22/02/18 (金)	248
250		Closed cooling water pump	2日	22/02/19 (土)	22/02/21 (月)	249
251		Condenser vacuum pump	2日	22/02/22 (火)	22/02/23 (水)	250
252		Dismantling hauling equipment	2日	22/02/24 (木)	22/02/25 (金)	251
253		ST blow down tank	1日	22/02/24 (木)	22/02/24 (木)	251
254		GT casing cooling fan	1日	22/02/25 (金)	22/02/25 (金)	253
255		GT compressor blade washing device	1日	22/02/26 (土)	22/02/26 (土)	254
256		Building MSB North structure	40日	22/04/15 (金)	22/05/31 (火)	166
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
259		Building structure for Air inlet duct access	2日	22/06/07 (火)	22/06/08 (水)	256FS+5日
260		Closed cooling water stand pipe	10日	22/06/09 (木)	22/06/20 (月)	259
261		Installing IPB	30日	22/09/09 (金)	22/10/13 (木)	190FS+30日
262		ST Blowdown pit sump pump	2日	22/02/24 (木)	22/02/25 (金)	253SS
263						
264		**6 MSB Inside South-West**	**216日**	**22/02/11 (金)**	**22/10/20 (木)**	
265		Chipping and packer setting	10日	22/02/28 (月)	22/03/10 (木)	255
266		Condensate extraction pump	2日	22/03/11 (金)	22/03/12 (土)	265
267		CEP access stair	1日	22/03/11 (金)	22/03/11 (金)	266SS
268		Trip valve unit	1日	22/03/12 (土)	22/03/12 (土)	269SS
269		Control oil unit	1日	22/03/12 (土)	22/03/12 (土)	267
270		Building MSB South structure	25日	22/02/11 (金)	22/03/11 (金)	240
271		Gland condenser and fan	1日	22/03/01 (火)	22/03/01 (火)	270SS+15日
272		Plant and Instrument air receiver	2日	22/10/17 (月)	22/10/18 (火)	273SS
273		Plant air compressor	2日	22/10/17 (月)	22/10/18 (火)	194
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
276		Condenser hotwell pit sump pump	2日	22/03/16 (水)	22/03/17 (木)	275
277						
278		**7 Lube oil room**	**306日**	**22/03/05 (土)**	**23/02/24 (金)**	
279		Chipping and packer setting	10日	22/03/05 (土)	22/03/16 (水)	265SS+5日
280		Disassemble structure	1日	22/03/17 (木)	22/03/17 (木)	279
281		Lube oil reservoir	1日	22/03/18 (金)	22/03/18 (金)	280
282		Assemble structure	1日	22/03/18 (金)	22/03/18 (金)	281SS
283		Open floor	15日	22/03/17 (木)	22/04/02 (土)	280SS
284		Lube oil filter with structure	2日	22/03/19 (土)	22/03/21 (月)	283SS+2日
285		Lube oil cooler	1日	22/03/19 (土)	22/03/19 (土)	284SS
286		JOP for GEN	2日	22/03/22 (火)	22/03/23 (水)	284
287		JOP for ST	2日	22/03/22 (火)	22/03/23 (水)	284
288		Lube oil purifier unit	2日	22/03/22 (火)	22/03/23 (水)	284
289		Lube oil transfer pump	2日	22/03/22 (火)	22/03/23 (水)	284
290		Lube oil accumulator	1日	22/03/22 (火)	22/03/22 (火)	284
291		Lifting piping into Lube oil room	20日	22/03/23 (水)	22/04/14 (木)	290
292		TCA filter	1日	22/09/10 (土)	22/09/10 (土)	193SS
293		TCA filter support	8日	23/02/16 (木)	23/02/24 (金)	209
294						
295		**9 East of MSB**	**163日**	**22/02/01 (火)**	**22/08/09 (火)**	
296		Chipping and packer setting	15日	22/02/01 (火)	22/02/17 (木)	7SS
297		Light Oil main pump unit	2日	22/02/18 (金)	22/02/19 (土)	296
298		GT light oil last chance filter	2日	22/02/21 (月)	22/02/22 (火)	297
299		GT light oil drain tank unit	2日	22/02/23 (水)	22/02/24 (木)	298
300		GT fuel gas flow meter	2日	22/02/25 (金)	22/02/26 (土)	299
301		Pipe rack from L11 to L12 (except around EB02)	60日	22/02/12 (土)	22/04/22 (金)	296SS+10日
302		Temp hanging Main Steam Piping	15日	22/04/23 (土)	22/05/10 (火)	301
303		Building structure for EB02	6日	22/03/31 (木)	22/04/06 (水)	301FS-20日
304		Preassembly EB02	20日	22/03/15 (火)	22/04/07 (木)	305SF
305		Lifting and installation EB02	2日	22/04/07 (木)	22/04/08 (金)	303
306		Sound proof around EB02	20日	22/04/23 (土)	22/05/16 (月)	301
307		Pipe rack from L11 to L12 (Above EB02)	30日	22/05/17 (火)	22/06/20 (月)	306
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
310		Oily drain pit sump pump	2日	22/02/10 (木)	22/02/12 (土)	301SF
311		Chemical drain pit sump pump	2日	22/02/10 (木)	22/02/12 (土)	301SF
312						
313		**10 North of HRSG**	**343日**	**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
315		Chipping and packer setting	15日	21/11/16 (火)	21/12/02 (木)	5
316		Lower Fuel gas heater	2日	21/12/03 (金)	21/12/04 (土)	315



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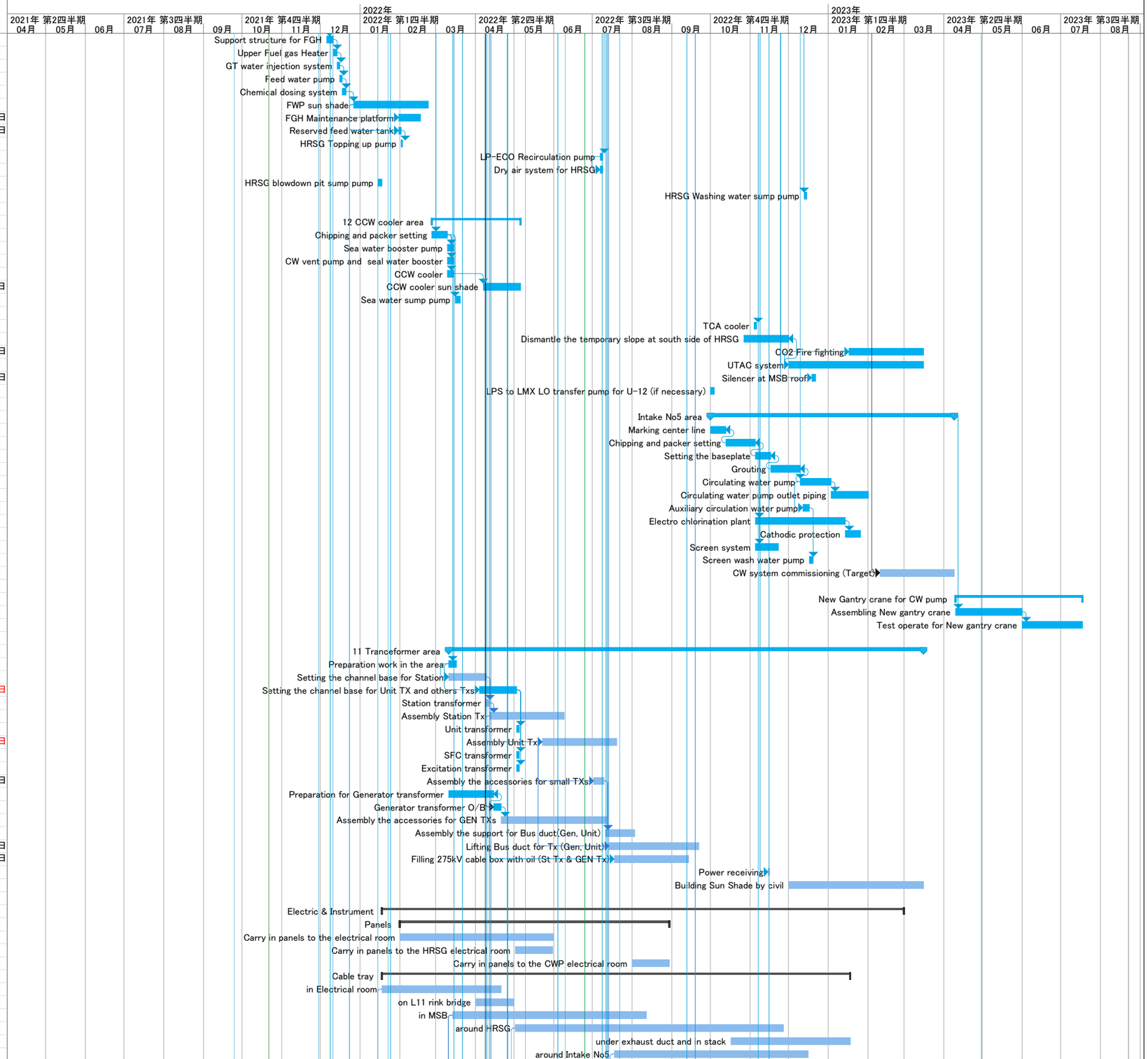
TAIHEI DENGYO KAISHA,LTD.

Construction Schedule of Unit-12

20th-Oct-2021
Rev.5a

ID	タスク名	期間	開始日	終了日	先行タスク
317	Support structure for FGH	5日	21/12/06 (月)	21/12/10 (金)	316
318	Upper Fuel gas Heater	2日	21/12/11 (土)	21/12/13 (月)	317
319	GT water injection system	2日	21/12/14 (火)	21/12/15 (水)	318
320	Feed water pump	2日	21/12/16 (木)	21/12/17 (金)	319
321	Chemical dosing system	2日	21/12/18 (土)	21/12/20 (月)	320
322	FWP sun shade	50日	21/12/27 (月)	22/02/22 (火)	321FS+5日
323	FGH Maintenance platform	15日	22/01/31 (月)	22/02/16 (水)	322SS+30日
324	Reserved feed water tank	2日	22/01/31 (月)	22/02/01 (火)	322SS+30日
325	HRSG Topping up pump	1日	22/02/02 (水)	22/02/02 (水)	324
326	LP-ECO Recirculation pump	2日	22/07/07 (木)	22/07/08 (金)	63
327	Dry air system for HRSG	2日	22/07/07 (木)	22/07/08 (金)	326SS
328	HRSG blowdown pit sump pump	2日	22/01/15 (土)	22/01/17 (月)	
329	HRSG Washing water sump pump	2日	22/12/13 (火)	22/12/14 (水)	75FS+10日
330					
331	**12 CCW cooler area**	**59日**	**22/02/26 (土)**	**22/05/05 (木)**	
332	Chipping and packer setting	10日	22/02/26 (土)	22/03/09 (水)	252
333	Sea water booster pump	4日	22/03/10 (木)	22/03/14 (月)	332
334	CW vent pump and seal water booster	4日	22/03/10 (木)	22/03/14 (月)	332
335	CCW cooler	4日	22/03/10 (木)	22/03/14 (月)	332
336	CCW cooler sun shade	25日	22/04/07 (木)	22/05/05 (木)	335FS+20日
337	Sea water sump pump	4日	22/03/16 (水)	22/03/19 (土)	332FS+5日
338					
339	TCA cooler	2日	22/11/04 (金)	22/11/05 (土)	220
340	Dismantle the temporary slope at south side of HRSG	30日	22/10/27 (木)	22/12/01 (木)	342SF
341	CO2 Fire fighting	50日	23/01/17 (火)	23/03/15 (水)	342SS+40日
342	UTAC system	90日	22/12/01 (木)	23/03/15 (水)	76SS
343	Silencer at MSB roof	3日	22/12/19 (月)	22/12/21 (水)	222SS+18日
344	LPS to LMX LO transfer pump for U-12 (if necessary)	2日	22/10/01 (土)	22/10/03 (月)	
345					
346	**Intake No5 area**	**163日?**	**22/10/01 (土)**	**23/04/08 (土)**	
347	Marking center line	10日	22/10/01 (土)	22/10/13 (木)	348SF
348	Chipping and packer setting	20日	22/10/13 (木)	22/11/05 (土)	349SF
349	Setting the baseplate	10日	22/11/05 (土)	22/11/17 (木)	350SF
350	Grouting	20日	22/11/17 (木)	22/12/10 (土)	351SF
351	Circulating water pump	20日	22/12/10 (土)	23/01/02 (月)	15FS+60日
352	Circulating water pump outlet piping	25日	23/01/03 (火)	23/01/31 (火)	351
353	Auxiliary circulation water pump	5日	22/12/12 (月)	22/12/16 (金)	351SS+1日
354	Electro chlorination plant	60日	22/11/05 (土)	23/01/13 (金)	348
355	Cathodic protection	10日	23/01/14 (土)	23/01/25 (水)	354
356	Screen system	15日	22/11/05 (土)	22/11/22 (火)	348
357	Screen wash water pump	2日	22/12/17 (土)	22/12/19 (月)	353
358	CW system commissioning (Target)	50日	23/02/10 (金)	23/04/08 (土)	19SS
359					
360	**New Gantry crane for CW pump**	**85日**	**23/04/10 (月)**	**23/07/17 (月)**	
361	Assembling New gantry crane	45日	23/04/10 (月)	23/05/31 (水)	346
362	Test operate for New gantry crane	40日	23/06/01 (木)	23/07/17 (月)	361
363					
364	**11 Tranceformer area**	**317日**	**22/03/11 (金)**	**23/03/15 (水)**	
365	Preparation work in the area	5日	22/03/11 (金)	22/03/16 (水)	10
366	Setting the channel base for Station	25日	22/03/11 (金)	22/04/08 (金)	365SS
367	Setting the channel base for Unit TX and others Txs	25日	22/04/04 (月)	22/05/02 (月)	365SS+20日
368	Station transformer	2日	22/04/09 (土)	22/04/11 (月)	366
369	Assembly Station Tx	50日	22/04/12 (火)	22/06/08 (水)	368
370	Unit transformer	2日	22/05/03 (火)	22/05/04 (水)	367
371	Assembly Unit Tx	50日	22/05/23 (月)	22/07/19 (火)	369SS+35日
372	SFC transformer	2日	22/05/03 (火)	22/05/04 (水)	367
373	Excitation transformer	2日	22/05/03 (火)	22/05/04 (水)	367
374	Assembly the accessories for small TXs	7日	22/07/02 (土)	22/07/09 (土)	371SS+35日
375	Preparation for Generator transformer	30日	22/03/11 (金)	22/04/15 (金)	376SF
376	Generator transformer O/B	5日	22/04/15 (金)	22/04/20 (水)	181SS
377	Assembly the accessories for GEN TXs	70日	22/04/21 (木)	22/07/11 (月)	376
378	Assembly the support for Bus duct(Gen, Unit)	20日	22/07/11 (月)	22/08/02 (火)	374
379	Lifting Bus duct for Tx (Gen, Unit)	60日	22/07/14 (木)	22/09/21 (水)	371SS+45日
380	Filling 275kV cable box with oil (St Tx & GEN Tx)	50日	22/07/18 (月)	22/09/13 (火)	376SS+80日
381	Power receiving	1日	22/11/15 (火)	22/11/15 (火)	14SS
382	Building Sun Shade by civil	90日	22/12/01 (木)	23/03/15 (水)	
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)**	
386	Carry in panels to the electrical room	103日	22/02/01 (火)	22/05/31 (火)	
387	Carry in panels to the HRSG electrical room	25日	22/05/02 (月)	22/05/30 (月)	
388	Carry in panels to the CWP electrical room	25日	22/08/01 (月)	22/08/29 (月)	
389	**Cable tray**	**313日**	**22/01/18 (火)**	**23/01/17 (火)**	
390	in Electrical room	80日	22/01/18 (火)	22/04/20 (水)	
391	on L11 rink bridge	26日	22/04/01 (金)	22/04/30 (土)	
392	in MSB	130日	22/03/14 (月)	22/08/11 (木)	
393	around HRSG	180日	22/05/02 (月)	22/11/26 (土)	
394	under exhaust duct and in stack	80日	22/10/17 (月)	23/01/17 (火)	
395	around Intake No5	130日	22/07/18 (月)	22/12/15 (木)	



NOTE

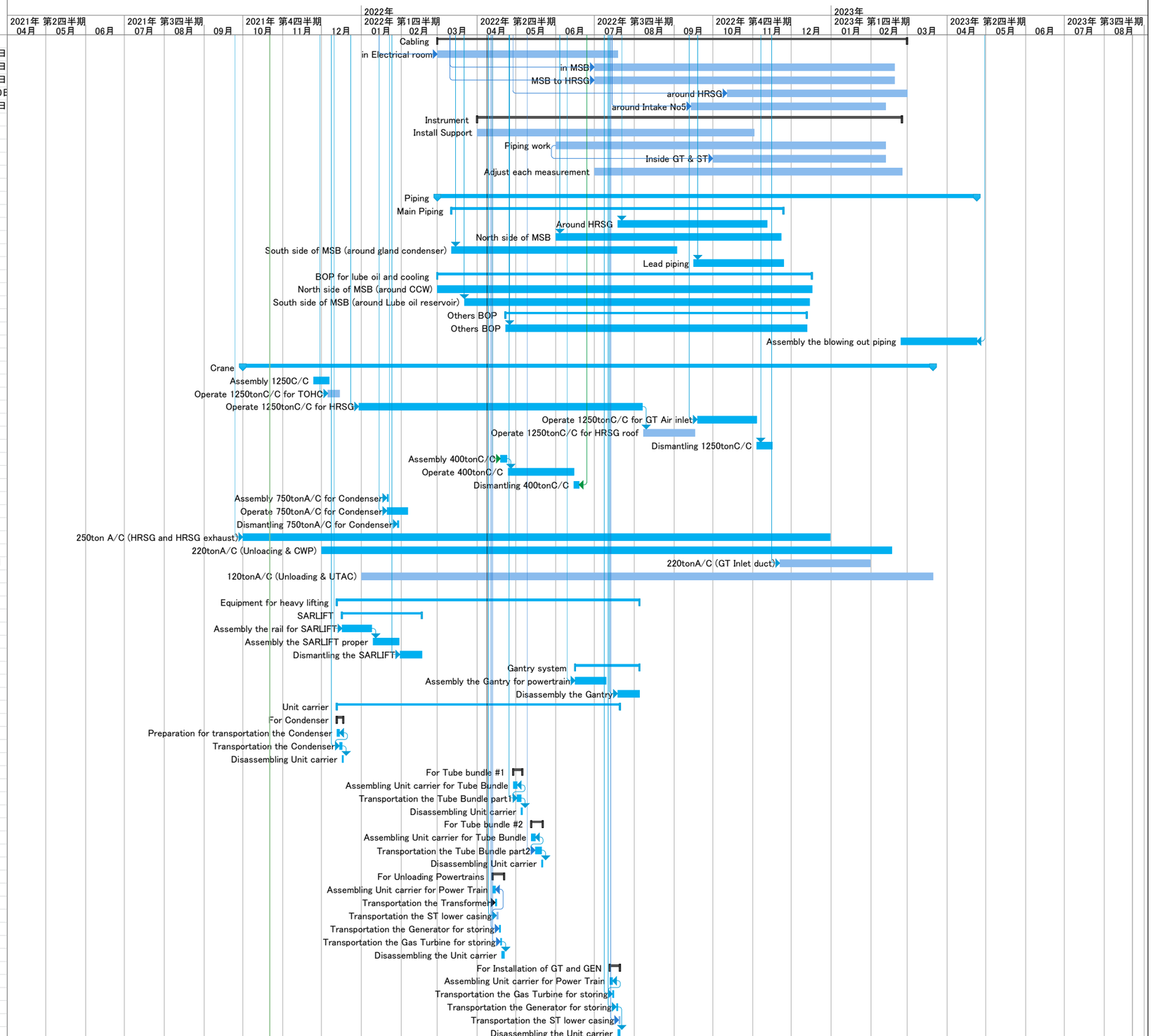
1. The key date is subjected in the KOM held on 30th-Sep.
2. The east area on the MSB is assumed to be handovered before B-Feb-2022 according to the above key date changed.
3. Considered the affection of KURE's schedule belows;
   i) Because of delaying the side casing,installation Inlet duct is postponed.
   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.

Construction Schedule of Unit-12

20th-Oct-2021
Rev.5a

ID	タスク名	期間	開始日	終了日	先行タスク
396	**Cabling**	**313日**	**22/03/01 (火)**	**23/02/28 (火)**	
397	in Electrical room	120日	22/03/01 (火)	22/07/18 (月)	390SS+36日
398	in MSB	200日	22/07/01 (金)	23/02/18 (土)	392SS+94日
399	MSB to HRSG	200日	22/07/01 (金)	23/02/18 (土)	392SS+94日
400	around HRSG	120日	22/10/12 (水)	23/02/28 (火)	393SS+140日
401	around Intake No5	130日	22/09/14 (水)	23/02/11 (土)	395SS+50日
402	**Instrument**	**283日**	**22/04/01 (金)**	**23/02/24 (金)**	
403	Install Support	184日	22/04/01 (金)	22/11/01 (火)	
404	Piping work	220日	22/06/01 (水)	23/02/11 (土)	
405	Inside GT & ST	115日	22/10/01 (土)	23/02/11 (土)	404SS
406	Adjust each measurement	205日	22/07/01 (金)	23/02/24 (金)	
407					
408	**Piping**	**359日**	**22/03/01 (火)**	**23/04/24 (月)**	
409	**Main Piping**	**221日**	**22/03/12 (土)**	**22/11/24 (木)**	
410	Around HRSG	100日	22/07/19 (火)	22/11/11 (金)	66
411	North side of MSB	150日	22/06/01 (水)	22/11/22 (火)	256
412	South side of MSB (around gland condenser)	150日	22/03/12 (土)	22/09/02 (金)	270
413	Lead piping	60日	22/09/16 (金)	22/11/24 (木)	195
414	**BOP for lube oil and cooling**	**250日**	**22/03/01 (火)**	**22/12/16 (金)**	
415	North side of MSB (around CCW)	250日	22/03/01 (火)	22/12/16 (金)	
416	South side of MSB (around Lube oil reservoir)	230日	22/03/22 (火)	22/12/14 (水)	269FS+7日
417	**Others BOP**	**200日**	**22/04/23 (土)**	**22/12/12 (月)**	
418	Others BOP	200日	22/04/23 (土)	22/12/12 (月)	301
419	Assembly the blowing out piping	50日	23/02/24 (金)	23/04/24 (月)	212SF
420					
421	**Crane**	**459日**	**21/10/01 (金)**	**23/03/20 (月)**	
422	Assembly 1250C/C	10日	21/11/25 (木)	21/12/06 (月)	
423	Operate 1250tonC/C for TOHC	8日	21/12/06 (月)	21/12/14 (火)	125SS
424	Operate 1250tonC/C for HRSG	189日	21/12/30 (木)	22/08/06 (土)	42SS-2日
425	Operate 1250tonC/C for GT Air inlet	40日	22/09/19 (月)	22/11/03 (木)	220SS
426	Operate 1250tonC/C for HRSG roof	35日	22/08/08 (月)	22/09/16 (金)	424
427	Dismantling 1250tonC/C	10日	22/11/04 (金)	22/11/15 (火)	220
428	Assembly 400tonC/C	5日	22/04/19 (火)	22/04/23 (土)	82SS
429	Operate 400tonC/C	44日	22/04/25 (月)	22/06/14 (火)	428
430	Dismantling 400tonC/C	4日	22/06/15 (水)	22/06/18 (土)	83FF
431	Assembly 750tonA/C for Condenser	1日	22/01/21 (金)	22/01/21 (金)	141SS
432	Operate 750tonA/C for Condenser	14日	22/01/21 (金)	22/02/05 (土)	431SS
433	Dismantling 750tonA/C for Condenser	1日	22/01/29 (土)	22/01/29 (土)	151SS
434	250ton A/C (HRSG and HRSG exhaust)	391日	21/10/01 (金)	22/12/30 (金)	24SS
435	220tonA/C (Unloading & CWP)	380日	21/12/01 (水)	23/02/16 (木)	
436	220tonA/C (GT Inlet duct)	60日	22/11/22 (火)	23/01/30 (月)	222SS-5日
437	120tonA/C (Unloading & UTAC)	380日	22/01/01 (土)	23/03/20 (月)	
438					
439	**Equipment for heavy lifting**	**202日**	**21/12/13 (月)**	**22/08/04 (木)**	
440	**SARLIFT**	**53日**	**21/12/17 (金)**	**22/02/16 (水)**	
441	Assembly the rail for SARLIFT	20日	21/12/17 (金)	22/01/08 (土)	136SS
442	Assembly the SARLIFT proper	18日	22/01/10 (月)	22/01/29 (土)	441
443	Dismantling the SARLIFT	15日	22/01/31 (月)	22/02/16 (水)	152SS
444	**Gantry system**	**43日**	**22/06/16 (木)**	**22/08/04 (木)**	
445	Assembly the Gantry for powertrain	21日	22/06/16 (木)	22/07/09 (土)	178SS
446	Disassembly the Gantry	15日	22/07/19 (火)	22/08/04 (木)	190SS
447	**Unit carrier**	**189日**	**21/12/13 (月)**	**22/07/20 (水)**	
448	**For Condenser**	**5日**	**21/12/13 (月)**	**21/12/17 (金)**	
449	Preparation for transportation the Condenser	2日	21/12/13 (月)	21/12/15 (水)	450SF
450	Transportation the Condenser	2日	21/12/15 (水)	21/12/16 (木)	142SS
451	Disassembling Unit carrier	1日	21/12/17 (金)	21/12/17 (金)	450
452	**For Tube bundle #1**	**6日**	**22/04/29 (金)**	**22/05/05 (木)**	
453	Assembling Unit carrier for Tube Bundle	2日	22/04/29 (金)	22/05/02 (月)	454SF
454	Transportation the Tube Bundle part1	3日	22/05/02 (月)	22/05/04 (水)	54SS
455	Disassembling Unit carrier	1日	22/05/05 (木)	22/05/05 (木)	454
456	**For Tube bundle #2**	**8日**	**22/05/13 (金)**	**22/05/21 (土)**	
457	Assembling Unit carrier for Tube Bundle	2日	22/05/13 (金)	22/05/16 (月)	458SF
458	Transportation the Tube Bundle part2	5日	22/05/16 (月)	22/05/20 (金)	57SS
459	Disassembling Unit carrier	1日	22/05/21 (土)	22/05/21 (土)	458
460	**For Unloading Powertrains**	**8日**	**22/04/13 (水)**	**22/04/21 (木)**	
461	Assembling Unit carrier for Power Train	2日	22/04/13 (水)	22/04/15 (金)	463SF-1日
462	Transportation the Transformer	1日	22/04/15 (金)	22/04/15 (金)	181SS
463	Transportation the ST lower casing	1日	22/04/16 (土)	22/04/16 (土)	182SS
464	Transportation the Generator for storing	1日	22/04/18 (月)	22/04/18 (月)	183SS
465	Transportation the Gas Turbine for storing	1日	22/04/19 (火)	22/04/19 (火)	184SS
466	Disassembling the Unit carrier	2日	22/04/20 (水)	22/04/21 (木)	465
467	**For Installation of GT and GEN**	**7日**	**22/07/13 (水)**	**22/07/20 (水)**	
468	Assembling Unit carrier for Power Train	2日	22/07/13 (水)	22/07/15 (金)	469SF
469	Transportation the Gas Turbine for storing	1日	22/07/15 (金)	22/07/15 (金)	186SS
470	Transportation the Generator for storing	1日	22/07/18 (月)	22/07/18 (月)	188SS
471	Transportation the ST lower casing	1日	22/07/20 (水)	22/07/20 (水)	189SS
472	Disassembling the Unit carrier	2日	22/07/19 (火)	22/07/20 (水)	470



NOTE
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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.

Monthly Waste Flow Table for January 2023

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

Contractor: Paul Y. Construction Company, Limited

Record by: Ben Lam

Year of Record: 2020, 2021, 2022 & 2023

MM.YYYY	Actual Quantities of Inert C&D Materials Generated Monthly								Actual Quantities of Non-inert C&D Materials Generated Monthly						
	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 (1) & (4)	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
Oct 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	44.71
Nov 2022	0.00	0.00	4930.52	0.00	0.00	0.00	0.00	0.00	6.67	0.00	0.000	0.00	0.00	0.00	12.15
Dec 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.21	0.00	0.000	0.00	0.00	0.00	62.32
Jan 2023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.57	0.00	0.000	0.00	0.00	0.00	8.89
Total	0.00	0.00	80467.07	0.00	0.00	0.00	0.00	17.79	294.94	0.00	0.25	0.00	1.00	0.70	683.59

Total Inert C&D Waste Materials Generated	Non-inert C&D Materials		
	C&D Materials Recycled	C&D Waste Disposed of at Landfill	Chemical Waste
80484.86 tonnes	295.19 tonnes	683.59 tonnes	0.70 tonnes

Where (A) Inert C&D materials include bricks, concrete, building debris, rubble and excavated spoil. In total, 80484.86 tonnes of inert C&D material were generated from the Project, of which 80467.07 tonnes were reused in this and other contracts, and the remaining 5.51 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) 10570 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 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 January 2023

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 & 2023

MM.YYYY	Actual Quantities of Inert C&D Materials Generated Monthly								Actual Quantities of Non-inert C&D Materials Generated Monthly						
	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 (1) & (4)	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	15076.84	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	29151.94	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
Oct 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	37.87
Nov 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	31.69
Dec 2022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.29	0.00	0.000	0.00	0.00	0.00	24.62
Jan 2023	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	39.90
Total	0.00	0.00	44228.78	0.00	0.00	0.00	0.00	34.31	11.50	0.00	0.00	0.00	0.60	0.42	560.46

Total Inert C&D Waste Materials Generated	**Non-inert C&D Materials**		
	C&D Materials Recycled	C&D Waste Disposed of at Landfill	Chemical Waste
44263.09 tonnes	11.50 tonnes	560.46 tonnes	0.42 tonnes

Where (A) Inert C&D materials include bricks, concrete, building debris, rubble and excavated spoil. In total, 44263.09 tonnes of inert C&D material were generated from the Project, of which 44228.78 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 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 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 January 2023

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, 2023

MM.YYYY	Actual Quantities of Inert C&D Materials Generated Monthly								Actual Quantities of Non-inert C&D Materials Generated Monthly					
	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 (1) & (4)	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
Oct 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	12.89
Nov 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	17.83
Dec 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	14.58
Jan 2023	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	15.11
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	207.53

Total Inert C&D Waste Materials Generated	Non-inert C&D Materials		
	C&D Materials Recycled	C&D Waste Disposed of at Landfill	Chemical Waste
0.00 tonnes	0.00 tonnes	207.53 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 material 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**.