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21 July 2020

Hong Kong Electric Co., Ltd.

**Environmental Impact Assessment (EIA) Ordinance, Cap.499
Application for EIA Study Brief**

**Project Title: Re-provision of Open Cycle Gas Turbines at Lamma Power Station
(Application No. ESB-331/2020)**

I refer to your above application received on 11.06.2020 for an EIA Study Brief under Section 5(1)(a) of the EIA Ordinance.

In accordance with Section 5(7)(a) of the EIA Ordinance and after public inspection of the Project Profile, I issue the attached EIA Study Brief (No. ESB-331/2020) for your preparation of an EIA report.

Under Section 15 of the EIA Ordinance, the EIA Study Brief will be placed on the EIA Ordinance Register. It will also be placed on the EIA Ordinance website (<http://www.epd.gov.hk/eia/>).

You may submit an application for approval of the EIA report in accordance with Section 6(2) of the EIA Ordinance after its completion. Upon receipt of your application, this department will decide under Section 6(3) of the EIA Ordinance whether the EIA report meets the requirements of the EIA Study Brief and Technical Memorandum on EIA Process, and accordingly advise you under Section 6(4) of the EIA Ordinance whether a submission to the Advisory Council on the Environment (ACE) or its subcommittee is required. In this connection, you are required to provide sufficient copies of the Executive Summary of the EIA report to the Secretariat of the EIA Subcommittee of the Council for selection for submission when you submit the EIA report to this department for approval. Please liaise with Ms. Becky LAM (Tel: 2594 6323) regarding the details in due course.


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If the EIA report is selected by ACE for submission and presentation, you are expected to provide ACE with an account of the environmental issues arising from the project, major conclusions and recommendations of the EIA study. In particular, the main environmental concerns of the general public and interest groups who may be affected by the project should be identified and addressed in the EIA study. As such, you are strongly advised to engage the public and interest groups during the course of the EIA study. Please find attached a copy of the “*Modus Operandi of the EIA Subcommittee of the Advisory Council on the Environment*” for your reference.

Please note that if you are aggrieved by any of the content of this EIA Study Brief, you may appeal under Section 17 of the EIA Ordinance within 30 days of receipt of this EIA Study Brief.

Should you have any queries on the above application, please contact my colleague Mr. Simon HO at 2835 1153.

Yours sincerely,



(Victor YEUNG)

Acting Principal Environmental Protection Officer
for Director of Environmental Protection

ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE (CAP. 499)
SECTION 5 (7)

ENVIRONMENTAL IMPACT ASSESSMENT STUDY BRIEF NO. ESB-331/2020

PROJECT TITLE: **Re-provision of Open Cycle Gas Turbines at Lamma Power Station**
(hereinafter known as the “Project”)

NAME OF APPLICANT: **The Hong Kong Electric Company Limited**
(hereinafter known as the “Applicant”)

1. BACKGROUND

1.1 An application (No. ESB-331/2020) for an Environmental Impact Assessment (EIA) study brief under section 5(1)(a) of the Environmental Impact Assessment Ordinance (EIAO) was submitted by the Applicant on 11 June 2020 with a project profile (No. PP-603/2020) (the Project Profile).

1.2 The Applicant proposes to demolish four existing oil-fired open cycle gas turbine units (OCGTs) and one existing combined cycle gas turbine unit (CCGT), and construct and operate up to four new OCGTs each with a capacity up to 130 MW to meet the peak-opping and emergency operational requirements at Lamma Power Station. The location of the Project is shown in Appendix A in this study brief and the major scope of works is described as follows:

- (i) Demolish the existing Gas Turbines (GT) GT2, GT3, GT4, GT57 and GT6;
- (ii) Installation of new Gas Turbines GT8, GT9, GT10 and GT11, each with a capacity of up to 130 MW;
- (iii) Install additional steel reinforcement and construct new concrete plinths to suit the new OCGT footprints;
- (iv) Install electrical works, control & instrumentation works and building services works for existing Gas Turbine compound including the Gas Turbine Equipment Building, Interbus Transformers and Gas Turbine 132 kV Switching Station;
- (v) Convert existing GT57 Auxiliary Building to a new 132KV switching station with new 132kV cables and associated cable trenches for the new OCGT units; and
- (vi) Carry out minor repair and refurbishment works of the existing stacks.

- 1.3 The Project is a designated project by virtue of Item 4 of Schedule 2, Part II of the EIAO “Decommissioning Project”, which specifies “A public utility---electricity power plant”, and Item D.1 of Schedule 2, Part I of the EIAO “Energy Supply”, which specifies “Public utility electricity power plant”.
- 1.4 Pursuant to section 5(7)(a) of the EIAO, the Director of Environmental Protection (the Director) issues this EIA study brief to the Applicant to carry out an EIA study.
- 1.5 The purpose of this EIA study is to provide information on the nature and extent of environmental impacts arising from the decommissioning and subsequent construction and operation of the Project and associated works that will take place concurrently. This information will contribute to decisions by the Director on:
- (i) the overall acceptability of any adverse environmental consequences that are likely to arise as a result of the Project;
 - (ii) the conditions and requirements for the detailed design, decommissioning, construction and operation of the Project to mitigate against adverse environmental consequences wherever practicable; and
 - (iii) the acceptability of residual impacts after the proposed mitigation measures are implemented.

2. OBJECTIVES OF THE EIA STUDY

- 2.1 The objectives of the EIA study are as follows:
- (i) to describe the Project and associated works together with the requirements and environmental benefits for carrying out the proposed project;
 - (ii) to identify and describe the elements of the community and environment likely to be affected by the Project and/or likely to cause adverse impacts to the Project, including both the natural and man-made environment and the associated environmental constraints;
 - (iii) to identify and quantify emission sources and determine the significance of impacts on sensitive receivers and potential affected uses;
 - (iv) to identify and quantify potential waste management issues and impacts arising as a result of the decommissioning, construction and operation activities of the Project;
 - (v) to identify and quantify contaminated land within any project area for development works, and to propose measures to avoid disposal in the first instance;

- (vi) to propose the provision of infrastructure or mitigation measures so as to minimise pollution, environmental disturbance and nuisance during decommissioning, construction and operation of the Project;
- (vii) to investigate the feasibility, effectiveness and implications of the proposed mitigation measures;
- (viii) to identify, predict and evaluate the residual environmental impacts (i.e. after practicable mitigation) and the cumulative effects expected to arise during the decommissioning, construction, and operation phases of the Project in relation to the sensitive receivers and potential affected uses;
- (ix) to identify, assess and specify methods, measures and standards, to be included in the detailed design, decommissioning, construction and operation of the Project which are necessary to mitigate these residual environmental impacts and cumulative effects and reduce them to acceptable levels;
- (x) to design and specify the environmental monitoring and audit requirements; and
- (xi) to identify any additional studies necessary to implement the mitigation measures of monitoring and proposals recommended in the EIA report.

3. DETAILED REQUIREMENTS OF THE EIA STUDY

3.1 The Purpose

The purpose of this study brief is to set out the purposes and objectives of the EIA study, the scope of environmental issues which shall be addressed, the requirements that the EIA study shall need to fulfil, and the necessary procedural and reporting requirements. The Applicant shall demonstrate in the EIA report whether the criteria in the relevant sections of the Technical Memorandum on the Environmental Impact Assessment Process of the Environmental Impact Assessment Ordinance (hereinafter referred to as “the TM”), are fully complied with.

3.2 The Scope

The scope of this EIA study shall cover the Project and associated works mentioned in Section 1.2 of this EIA study brief. For the purpose of assessing whether the environmental impacts shall comply with the criteria of the TM, the EIA study shall address the key issues described below, together with any other key issues identified during the course of the EIA study:

- (i) environmental benefits and dis-benefits of different development options, including design, decommissioning and construction methods of the Project

with a view to deriving the preferred development option(s) that will avoid or minimise adverse environmental impact;

- (ii) potential air quality on air sensitive receivers (ASRs) due to the decommissioning, construction and operation of the Project;
- (iii) potential noise impacts on noise sensitive receivers (NSRs) due to the decommissioning, construction and operation of the Project;
- (iv) potential water quality impacts on water sensitive receivers (WSRs) and any water system(s) in the vicinity due to decommission and construction of the Project;
- (v) potential waste management implications arising from the decommissioning, construction and operation of the Project;
- (vi) potential extent of land contamination within project area for development works, and relevant mitigation measures; and
- (vii) potential cumulative environmental impacts of the Project, through interaction or in combination with other existing, committed and planned projects in the vicinity of the Project, and that those impacts may have a bearing on the environmental acceptability of the Project.

3.3 Description of the Project

3.3.1 Purpose(s) and Objectives of the Project

The Applicant shall provide information on the purpose(s) and objectives of the Project, and describe the environmental benefits of the Project and scenarios with and without the Project.

3.3.2 Details of the Project

The Applicant shall indicate the nature and status of Project decision(s) for which the EIA study is undertaken. The Applicant shall describe Project details that may affect the potential environmental impacts, including the proposed siting, scale/size, layout design, demolition and construction methods, sequence of decommissioning and construction works, and other major activities involved in the decommissioning, construction and operation phases of the Project, using diagrams, plans and/or maps as necessary. The estimated duration of the decommissioning phase, construction phase and operational phase of the Project together with the programme within these phases, where appropriate, shall be given. The land taken by the Project site(s), construction sites and any associated access arrangements and auxiliary facilities shall be shown on a scaled map. The uses of the Project shall be described and the different land use areas shall be demarcated as appropriate.

3.3.3 Background and History of the Project

The Applicant shall provide information on the site location and site history of the Project, interactions with other projects, and the consideration of the different development options, taking into account the principles of avoidance, minimising and control of adverse environmental impacts. The options might include siting, scale/size, layout design, demolition and construction methods, and sequence of demolition and construction works for the Project. The key reasons for selecting the proposed development options and siting, and the part environmental factors played in the selection shall be described. The main environmental impacts of different development options shall be compared with those of the Project and with the likely future environmental conditions in the absence of the Project.

3.4 **Technical Requirements**

3.4.1 The Applicant shall conduct the EIA study to address all environmental aspects of the activities as described in the scope as set out above. The assessment shall be based on the best and latest information available during the course of the EIA study.

3.4.2 The Applicant shall include in the EIA report details of the demolition and construction programme and methodologies. The Applicant shall clearly state in the EIA report the time frame and work programmes of the Project and associated works and other concurrent projects, and assess the cumulative environmental impacts from the Project with all interacting projects, including staged implementation of the Project and associated works.

3.4.3 The EIA study shall follow the technical requirements specified below and in the Appendices of this EIA study brief.

3.4.3 **Air Quality Impact**

3.4.3.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing air quality impact as stated in section 1 of Annex 4 and Annex 12 of the TM respectively.

3.4.3.2 As stipulated in Section 1.2 above, the Project is to decommission the existing GT2, GT3, GT4, GT57 and GT6 for the installation of GT8, GT9, GT10 and GT11. The Applicant may carry out a comparative air impact assessment to demonstrate if the stack emission impacts from the above gas turbine units before and after the Project will lead to lower air quality impacts at the surrounding Air Sensitive Receivers (ASRs) within the assessment area. If the result of the comparative air impact assessment shows that the air quality impacts at ASRs are worsened, cumulative air quality impact assessment shall be carried out to evaluate the cumulative impacts at the identified ASRs against the criteria set out in section 1 of Annex 4 of the TM.

- 3.4.3.3 The assessment area for air quality impact assessment shall be defined by a distance of 15 km from the boundary of the Project site and the works of the Project as identified in the EIA study, which shall be extended to include major existing, committed and planned air pollutant emission sources identified to have a bearing on the environmental acceptability of the Project. The assessment shall include the existing, committed and planned sensitive receivers within the assessment area as well as areas where air quality may be potentially affected by the Project, including areas of Lamma Island, Cheung Chau, Peng Chau, Hei Ling Chau, Northern and Eastern part of Lantau Island as well as Southern District, Central and Western District, Eastern District of Hong Kong Island, Kowloon, Tsing Yi. The assessment shall be based on the best available information at the time of the assessment.
- 3.4.3.4 The assessment of air quality impact shall follow the detailed technical requirements given in Appendix B of this EIA study brief.

3.4.4 Noise Impact

- 3.4.4.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing the decommissioning, construction and operation noise impacts arising from the Project as stated in Annexes 5 and 13 of the TM respectively.
- 3.4.4.2 The assessment area for the noise impact assessment shall generally include areas within 300m from the boundary of the Project site and the works of the Project as identified in the EIA study. Subject to the agreement of the Director, the assessment area could be reduced accordingly if the first layer of noise sensitive receivers (NSRs), closer than 300m from the outer Project limit, provides acoustic shielding to those receivers at distances further away from the Project. The assessment area shall be expanded to include NSRs at distances over 300m from the Project which are affected by the decommissioning, construction and operation of the Project. The assessment shall cover the potential noise impacts due to the decommissioning, construction and operation of the Project, including the noise generated from demolition activities, construction equipment during construction, marine traffic noise during decommissioning and construction and fixed plant noise arising from the Project during operation on the existing, committed and planned noise sensitive receivers (NSRs) earmarked on the relevant Outline Zoning Plans, Development Permission Area Plans, Outline Development Plans, Layout Plans and other relevant published land use plans, including plans and drawings published by the Lands Department and any land use and development applications approved by the Town Planning Board, in the vicinity of the project.
- 3.4.4.3 The assessment of noise impact arising from the decommissioning, construction and operation of the Project shall follow the detailed technical requirements given in Appendix C of this EIA study brief.

3.4.5 Water Quality Impact

- 3.4.5.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing water pollution as stated in Annexes 6 and 14 of the TM respectively.
- 3.4.5.2 The assessment area for the water quality impact assessment shall include areas within 500 metres from the boundary of the Project and shall cover the Southern Water Control Zone and other affected Water Control Zones as designated under the Water Pollution Control Ordinance (Cap. 358), and water sensitive receivers in the vicinity of the Project. The assessment area shall be extended to include other areas if they are found also being impacted during the course of the EIA study and have a bearing on the environmental acceptability of the Project.
- 3.4.5.3 The assessment of water quality impact arising from the decommissioning and construction of the Project shall follow the detailed technical requirements given in Appendix D of this EIA study brief.

3.4.6 Waste Management Implication

- 3.4.6.1 The Applicant shall follow the criteria and guidelines for evaluating and assessing waste management implication as stated in Annexes 7 and 15 of the TM.
- 3.4.6.2 The assessment of waste management implications arising from the decommissioning, construction and operation of the Project shall follow the detailed technical requirements given in Appendix E of this EIA study brief.

3.4.7 Land Contamination

- 3.4.7.1 The Applicant shall follow the guidelines for evaluating and assessing potential land contamination issues as stated in Sections 3.1 and 3.2 of Annex 19 of the TM.
- 3.4.7.2 The assessment of potential land contamination issues shall follow the detailed technical requirements given in Appendix F of this EIA study brief.

3.5 Environmental Monitoring and Audit (EM&A) Requirements

- 3.5.1 The Applicant shall identify and justify in the EIA study whether there is any need for EM&A activities during the decommissioning, construction and operation phases of the Project and, if affirmative, to define the scope of the EM&A requirements for the Project in the EIA study.
- 3.5.2 Subject to the confirmation of the EIA study findings, the Applicant shall comply with the requirements as stipulated in Annex 21 of the TM.
- 3.5.3 The Applicant shall prepare a Project Implementation Schedule (in the form of a checklist as shown in Appendix G) containing all the EIA study recommendations

and mitigation measures with reference to the implementation programme.

3.6 Presentation of Summary Information

3.6.1 Summary of Environmental Outcomes

The EIA report shall contain a summary of key environmental outcomes arising from the EIA study, including estimated population protected from various environmental impacts, environmentally sensitive areas protected, environmentally friendly options considered and incorporated in the preferred option, environmental designs recommended, key environmental problems avoided, compensation areas included and the environmental benefits of environmental protection measures recommended.

3.6.2 Summary of Environmental Impacts

To facilitate effective retrieval of pertinent key information, the EIA report shall contain a summary table of environmental impacts showing the assessment points, results of impact predictions, relevant standards or criteria, extents of exceedances predicted, impact avoidance measures considered, mitigation measures proposed and residual impacts (after mitigation). This summary shall cover each individual impact and shall also form an essential part of the executive summary of the EIA report.

3.6.3 Documentation of Key Assessment Assumptions, Limitation of Assessment Methodologies and related Prior Agreement(s) with the Director

The EIA report shall contain a summary including the assessment methodologies and key assessment assumptions adopted in the EIA study, the limitations of these assessment(s) methodologies/assumptions, if any, plus relevant prior agreement(s) with the Director or other Authorities on individual environmental media assessment components. The proposed use of any alternative assessment tool(s) or assumption(s) have to be justified by the Applicant, with supporting documents based on cogent, scientific and objectively derived reason(s) before seeking the Director's agreement. The supporting documents shall be provided in the EIA report.

3.6.4 Summary of Alternative Mitigation Measures

The EIA report shall contain a summary of alternative measures considered during the course of EIA study, including location, size/scale, design, layout and mode of operation as well as demolition and construction methods, and sequences of works for the Project, with a view to avoiding or minimising and mitigating adverse environmental impacts. A comparison of the environmental benefits and dis-benefits of applying different mitigation measures shall be made. This summary shall cover the key impacts and shall also form an essential part of the executive summary of

the EIA report.

3.6.5 Documentation of Public Concerns

The EIA report shall contain a summary of the main concerns of the general public, special interest groups and the relevant statutory or advisory bodies received and identified by the Applicant during the course of the EIA study, and describe how the relevant concerns have been taken into account.

4. **DURATION OF VALIDITY**

4.1 The Applicant shall notify the Director of the commencement of the EIA study. If the EIA study does not commence within 36 months after the date of issue of this EIA study brief, the Applicant shall apply to the Director for a fresh EIA study brief before commencement of the EIA study.

5. **REPORTING REQUIREMENTS**

5.1 In preparing the EIA report, the Applicant shall refer to Annex 11 of the TM for the contents of an EIA report. The Applicant shall also refer to Annex 20 of the TM, which stipulates the guidelines for the review of an EIA report. When submitting the EIA report to the Director, the Applicant shall provide a summary, pointing out where in the EIA report the respective requirements of this EIA study brief and the TM (in particular Annexes 11 and 20) have been addressed and fulfilled.

5.2 The Applicant shall supply the Director with hard and electronic copies of the EIA report and the executive summary in accordance with the requirements given in Appendix H of this EIA study brief. The Applicant shall, upon request, make additional copies of the above documents available to the public, subject to payment by the interested parties of full costs of printing.

6. **OTHER PROCEDURAL REQUIREMENTS**

6.1 If there is any change in the name of Applicant for this EIA study brief during the course of the EIA study, the Applicant must notify the Director immediately.

6.2 If there is any key change in the scope of the Project mentioned in Section 1.2 of this EIA study brief and in the Project Profile (No. PP-603/2020), the Applicant must seek confirmation from the Director in writing on whether or not the scope of issues covered by this EIA study brief can still cover the key changes, and the additional issues, if any, that the EIA study must also address. If the changes to the Project fundamentally alter the key scope of the EIA study brief, the Applicant shall apply to the Director for a fresh EIA study brief.

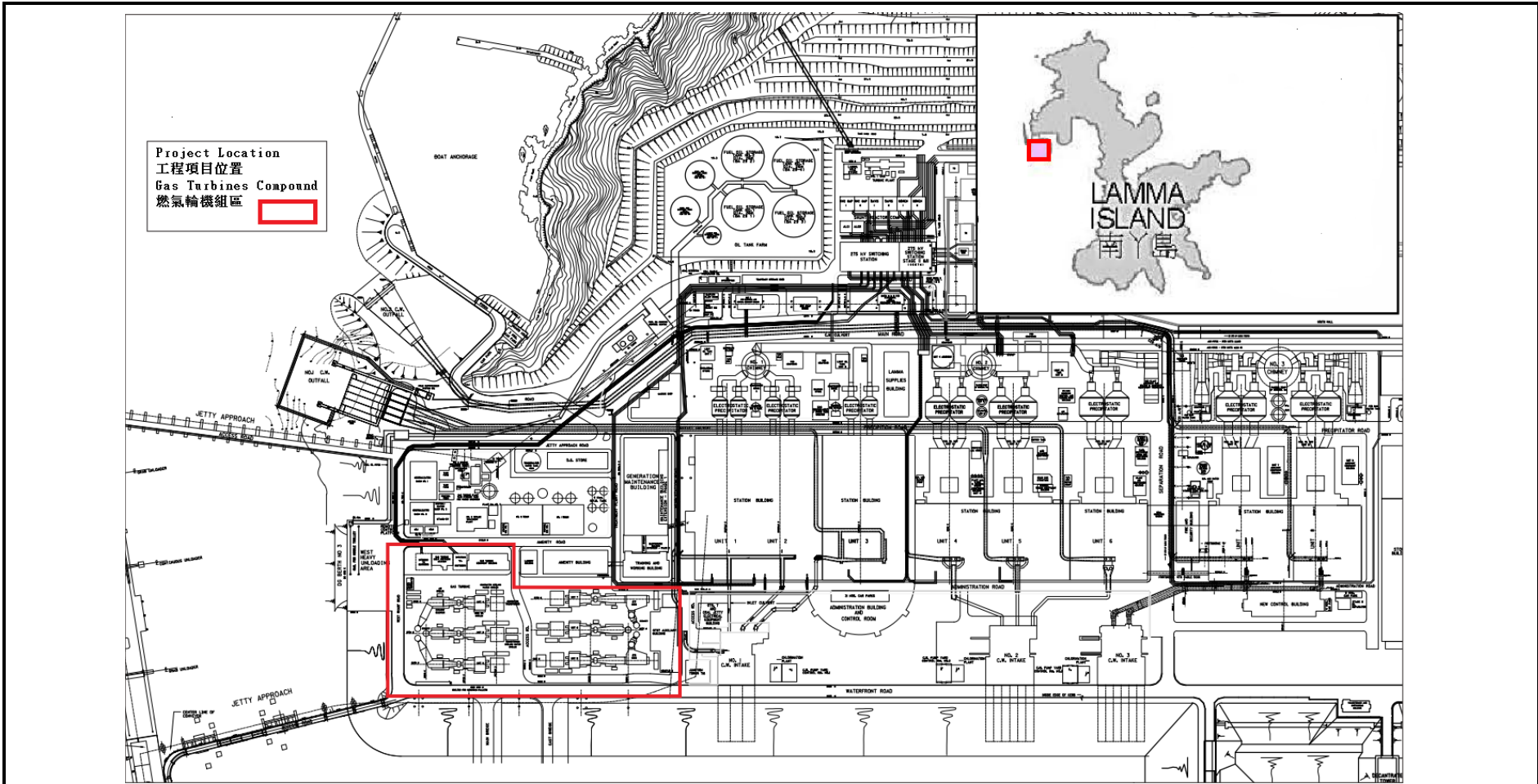
7. LIST OF APPENDICES

7.1 This EIA study brief includes the following appendices:

- Appendix A – Project Location Plan
- Appendix B – Requirements for Air Quality Impact Assessment
- Appendix B-1 – Air Quality Modelling Guidelines
- Appendix C – Requirements for Noise Impact Assessment
- Appendix D – Requirements for Water Quality Impact Assessment
- Appendix E – Requirements for Waste Management Implication
- Appendix F – Requirements for Land Contamination Assessment
- Appendix G – Requirements for Implementation Schedule
- Appendix H – Requirements for EIA Report Documents

--- END OF EIA STUDY BRIEF ---

Appendix A



Project Title : Re-provision of Open Cycle Gas Turbines at Lamma Power Station
工程項目名稱 : 南丫發電廠更換開放式循環燃氣輪機組

(This figure is prepared based on Figure 2.1 of Project Profile No.: PP-603/2020)

(本圖是根據工程項目簡介 PP-603/2020 圖 2.1 編製)

EIA Study Brief No. :

環評研究概要編號 :

ESB-331/2020

Appendix A: Project Location Plan

附錄 A: 工程項目位置圖



Appendix B**Requirements for Air Quality Impact Assessment**

The air quality impact assessment shall include the following:

1. Background and Analysis of Activities

- (i) Provision of background information relating to air quality issues relevant to the Project, e.g. description of the types of activities of the Project that may affect air quality during decommissioning, construction and operation stages of the Project.
- (ii) Provision of an account, where appropriate, of the consideration/ measures that have been taken into consideration during the planning of the Project to avoid and minimise the air pollution impact. The Applicant shall consider alternative demolition and construction methods/ phasing programmes and alternative modes of operation to minimise the air quality impact during decommissioning, construction and operation stages of the Project.
- (iii) Presentation of background air quality levels in the assessment for the purpose of evaluating cumulative air quality impacts during decommissioning, construction and operation stages of the Project. If the PATH model is used to estimate the future background air quality, details for the estimation of all emission sources to be adopted in the model runs should be clearly presented.

2. Identification of Air Sensitive Receivers (ASRs) and Examination of Emission/Dispersion Characteristics

- (i) Identification and description of existing, committed and planned ASRs that would likely be affected by the Project, including those earmarked on the relevant Outline Zoning Plans, Development Permission Area Plans, Outline Development Plans and Layout Plans and other relevant published land use plans, including plans and drawings published by Lands Department and any land use and development applications approved by the Town Planning Board. The Applicant shall select the assessment points of the identified ASRs that represent the worst impact point of these ASRs. A map clearly showing the location and description such as name of buildings, their uses and height of the selected assessment points shall be given. The separation distances of these ASRs from the nearest emission sources shall also be given.
- (ii) Provision of a list of air pollution emission sources, including any nearby emission sources which are likely to have impact related to the Project based on the analysis of the decommissioning, construction and operation activities in section 1 above. Examples of decommissioning and construction stage emission sources and nearby dust emission sources include site clearance,

demolition, installation of the new OCGTs, vehicular movements, etc. Example of operational stage emission sources include stack emissions from the new OCGTs. Confirmation regarding the validity of the assumptions adopted and the magnitude of the activities (e.g. volume of construction material to be handled, etc.) shall be obtained from the relevant parties, where applicable, and documented in the EIA report.

- (iii) Identification of chimneys and obtainment of relevant chimney emission data in the assessment area, where appropriate, by carrying out a survey for assessing the cumulative air quality impact of air pollutants through chimneys. The Applicant shall ensure and confirm the validity of the emission data used in their assessment. Any errors found in their emission data used may render the submission invalid.
- (iv) The emissions from any concurrent projects identified as relevant during the course of the EIA study shall be taken into account as contributing towards the overall cumulative air quality impact. The impact as affecting the existing, committed and planned ASRs within the study area shall be assessed, based on the best information available at the time of assessment.

3. Demolition and Construction Phase Air Quality Impact

- (i) The Applicant shall follow the requirements stipulated under the Air Pollution Control (Construction Dust) Regulation to ensure that demolition and construction dust impacts are controlled within the relevant standards as stipulated in section 1 of Annex 4 of the TM.
- (ii) If the Applicant anticipates that the Project will give rise to significant demolition and construction dust impacts likely to exceed recommended limits in the TM at the ASRs within 500m from the project boundary despite the incorporation of the dust control measures proposed, a quantitative assessment shall be carried out to evaluate the demolition and construction dust impacts at the identified ASRs. The Applicant shall follow the methodology set out in Section 5 below when carrying out the quantitative assessment.
- (iii) Where necessary, the Applicant shall consider and evaluate direct mitigation measures, including water-spraying, re-scheduling construction programme to minimise concurrent dust impact arising from different construction sites, for fugitive dust control. The Applicant shall describe the means of transportation and their routings involved, with a view to addressing potential dust nuisance caused by transportation activities. Any mitigation measures recommended for fugitive dust control should be well documented in the EIA report.
- (iv) A monitoring and audit programme for the decommissioning and construction phase of the Project shall be devised to verify the effectiveness of the proposed control measures so as to ensure proper control of fugitive dust

emission.

4. Operational Phase Air Quality Impact

- (i) The Applicant shall quantify the expected air pollutant impacts due to the Project at the identified ASRs within 15km from the project boundary as well as areas where the air quality may be significantly affected by the Project based on an assumed reasonably worst-case scenario under normal operating conditions.
- (ii) The Applicant shall describe operation scenarios of power generation to supply electricity with and without the new OCGTs in place. The Applicant shall demonstrate if there is any reduction in air quality impact at the identified ASRs during the normal operation of the Project and quantify the improvement accordingly.
- (iii) The Applicant shall follow the methodology set out in Section 5 below when carrying out the quantitative assessment.
- (iv) A monitoring and audit programme for the operational stage shall be devised to verify the effectiveness of the proposed control measures proposed so as to ensure proper operational emission control.

5. Quantitative Assessment Methodology

- (i) The Applicant shall conduct the quantitative assessment by applying the general principles enunciated in the modelling guidelines in Appendix B-1 while making allowance for the specific characteristic of the Project. This specific methodology must be documented in such level of details, preferably assisted with tables and diagrams, to allow the readers of the EIA report to grasp how the model has been set up to simulate the situation under study without referring to the model input files. In case of doubt, prior agreement between the Applicant and the Director on the specific modelling details should be sought.
- (ii) The Applicant shall identify the key/representative air pollution parameters (types of pollutants and averaging time concentrations) to be evaluated and provide explanation for selecting such parameters for assessing the impact from the Project.
- (iii) Calculations of the relevant pollutants emission rates for input to the model, a summary table of the emission rates and maps showing the emission sources shall be presented in the EIA report. The Applicant must ensure consistency between the text description and the model files at every stage of submissions for review.

- (iv) If the predicted air quality impacts at the ASRs are worsened by the Project, the Applicant shall calculate the overall cumulative air quality impact at the ASRs identified under Section 2 above and compare these results against the criteria set out in section 1 of Annex 4 in the TM. The predicted air quality impacts (both unmitigated and mitigated) shall be presented in the form of summary table(s) and pollution contours, to be evaluated against the relevant air quality standards and on any effect they may have on the land use implications. Plans of a suitable scale should be used to present pollution contours to allow buffer distance requirements to be determined properly.
- (v) When cumulative air impact assessment is carried out, the Applicant should also observe the following requirements:
- (a) For on-road vehicle emissions, the Applicant may use EMFAC-HK model released by the Director to determine the Fleet Average Emission Factors, taking into account vehicle fleet mix and other necessary data on each road section. Unless otherwise agreed by the Director, the latest version of the EMFAC-HK model shall be used. Use of any alternatives to the EMFAC-HK model shall be agreed with the Director. The traffic forecast data and assumptions, such as the hourly traffic volume, average speed, vehicle composition and number of trips data and the exhaust technology fractions, vehicle age/population distribution, etc. that are used in the assessment shall be presented.
- (b) For estimating the future background air quality, the Applicant may use the PATH model released by the Director, taking into consideration the major air pollutant emission sources projected for Hong Kong and nearby regions. Unless otherwise agreed by the Director, the latest version of the PATH model shall be used. Use of any alternatives to the PATH model shall be agreed with the Director. Details of the adopted emission sources should be presented.
- (c) The assessment shall also take into account the impacts of emission sources from road vehicles, nearby concurrent projects and major point sources which are located within 4 km from the ASRs and may have direct impact on the ASRs, if any, which should be modelled by dispersion model to account for the spatial variations in background concentrations induced by them.
- (d) Ozone Limiting Method (OLM) or Discrete Parcel Method (DPM) or other appropriate method shall be used to estimate the conversion ratio of NO_x to NO₂ if NO₂ has been identified as a key/representative air pollutant.

6. Mitigation Measures for Air Quality Impact

Consideration for Mitigation Measures

- (i) When the predicted air quality impact exceeds the criteria set in section 1 of Annex 4 in the TM, the Applicant shall consider mitigation measures to reduce the air quality impact on the identified ASRs. The feasibility, practicability, programming and effectiveness of the recommended mitigation measures shall be assessed and documented in the EIA report. Specific reasons for not adopting certain workable mitigation measures to reduce the air quality to a level meeting the criteria in the TM or to maximise the protection of the ASRs as far as possible should be clearly substantiated and documented in the EIA report.

Evaluation of Residual Air Quality Impact

- (ii) Upon consideration of mitigation measures, if the mitigated air quality impact still exceeds the relevant criteria in Annex 4 of the TM, the Applicant shall identify, predict, and evaluate the residual air quality impact in accordance with section 4.4.3 and section 4.5.1(d) of the TM.

7. Submission of Emission Calculation Details and Model Files

All input and output file(s) of the model run(s), including those files for the generation of pollution contours as well as the emissions calculation worksheets, shall be submitted to the Director in electronic format together with the submission of the EIA report.

Appendix B-1

Air Quality Modelling Guidelines

[The information contained in this Appendix is meant to assist the Applicant in performing the air quality assessment. The Applicant must exercise professional judgment in applying this general information.]

The air quality modelling guidelines shall include the following guidelines as published on the website of the Environmental Protection Department

(https://www.epd.gov.hk/epd/english/environmentinhk/air/guide_ref/guide_aqa_model.html):

- i) Guidelines on Choice of Models and Model Parameters (Revised);
- ii) Guidelines on Assessing the ‘Total’ Air Quality Impacts (Revised);
- iii) Guidelines on the Use of Alternative Computer Models in Air Quality Assessment;
- iv) Guidelines on the Estimation of PM_{2.5} for Air Quality Assessment in Hong Kong; and
- v) Guidelines on the Estimation of 10-minute Average SO₂ Concentration for Air Quality Assessment in Hong Kong.

Appendix C**Requirements for Noise Impact Assessment**

The noise impact assessment shall include the following:

1. Description of the Noise Environment

- 1.1 The Applicant shall describe the prevailing noise environment in the EIA report.
- 1.2 The Applicant shall conduct prevailing background noise surveys to determine the standards for evaluating noise impact from fixed noise source and marine traffic noise sources. The respective noise environment should be documented in the EIA report.

2. Demolition and Construction Noise Impact Assessment**2.1 Demolition and Construction Noise Impact Assessment Methodology**

- 2.1.1 The Applicant shall carry out demolition and construction noise impact assessment (excluding percussive piling) of the Project during daytime, i.e. 7am to 7pm, on weekdays other than general holidays in accordance with methodology in paragraphs 5.3 and 5.4 of Annex 13 of the TM.

2.2 Identification of Demolition and Construction Noise Impact**2.2.1 Identification of Assessment Area and Noise Sensitive Receivers (NSRs)**

- (a) The Applicant shall propose the assessment area for agreement of the Director before commencing the assessment. The assessment area for the demolition and construction noise impact assessment shall generally include areas within 300 metres from the boundary of the Project and the works of the Project.
- (b) The Applicant shall identify all existing, committed and planned NSRs in the assessment area and select assessment points to represent identified NSRs for carrying out quantitative demolition and construction noise impact assessment as described below.
- (c) The assessment points shall be confirmed with the Director before commencing the assessment and may be varied subject to the best and latest information available during the course of the EIA study.
- (d) A map showing the location and description such as name of building, use, and floor of each and every selected assessment point shall be given. Photographs of existing NSRs shall be appended to the EIA report.

2.2.2 Inventory of Noise Sources

The Applicant shall identify and quantify an inventory of noise sources for representative demolition activities and construction equipment for the purpose of demolition and construction noise impact assessment. Validity of the inventory shall be confirmed with the relevant government departments, authorities or the applicant's construction professionals and documented in the EIA report.

2.3 Prediction and Evaluation of Demolition and Construction Noise Impact

2.3.1 Phases of Demolition and Construction

The Applicant shall identify representative phases of demolition and construction that would have noticeable varying demolition and construction noise emissions at existing, committed and planned NSRs at the assessment area for agreement of the Director before commencing the demolition and construction noise impact assessment.

2.3.2 Scenarios

The Applicant shall quantitatively assess the demolition and construction noise impact, with respect to criteria set in Annex 5 of the TM, of unmitigated scenario and mitigated scenario at different phases of decommissioning and construction of the Project.

2.3.3 Prediction of Noise Impact

- (a) The Applicant shall present the predicted noise levels in Leq (30 min) dB(A) at the selected assessment points at various representative floor levels (in m P.D.) on tables and plans of suitable scale.
- (b) The assessment shall cover the cumulative demolition and construction noise impact resulting from the demolition and construction works of the Project and other concurrent projects identified during the course of the EIA study on existing NSRs within the assessment area.
- (c) The potential demolition and construction noise impact under different phases of demolition and construction shall be quantified by estimating the total number of dwellings, classrooms and other noise sensitive receivers that will be exposed to noise impact exceeding the criteria set in Annex 5 in the TM.
- (d) The Applicant shall, as far as practicable, formulate a reasonable construction programme so that no work will be required in restricted hours as defined under the Noise Control Ordinance (NCO). In case the Applicant needs to evaluate whether construction works in restricted hours as defined under the NCO are feasible or not in the context of programming demolition and construction

works, reference should be made to relevant technical memoranda issued under the NCO. Regardless of the results of demolition and construction noise impact assessment for restricted hours, the Noise Control Authority will process Construction Noise Permit (CNP) application, if necessary, based on the NCO, the relevant technical memoranda issued under the NCO, and the contemporary conditions/situations. This aspect should be explicitly stated in the noise chapter and the conclusions and recommendations chapter in EIA report.

2.4 Mitigation of Demolition and Construction Noise Impact

2.4.1 Direct Mitigation Measures

Where the predicted construction noise impact exceeds the criteria set in Table 1B of Annex 5 of the TM, the Applicant shall consider and evaluate direct mitigation measures (including movable barriers, enclosures, quieter alternative methods, re-scheduling, restricting hours of operation of noisy tasks, etc.). The feasibility, practicability, programming and effectiveness of the recommended mitigation measures shall be assessed. Any direct mitigation measures recommended should be well documented in the report. Specific reasons for not adopting certain direct mitigation measures to reduce the noise to a level meeting the criteria in the TM or to maximise the protection for the NSRs as far as possible should be clearly substantiated and documented in the EIA report.

2.5 Evaluation of Residual Demolition and Construction Noise Impact

Upon exhaust of direct mitigation measures, if the mitigated noise impact still exceeds the relevant criteria in Annex 5 of the TM, the Applicant shall identify, predict, evaluate the residual demolition and construction noise impact in accordance with section 4.4.3 of the TM and estimate the total number of existing dwellings, classrooms and other noise sensitive elements that will be exposed to residual noise impact exceeding the criteria set in Annex 5 in the TM.

2.6 Demolition and Construction Noise Impact Monitoring and Audit

The Applicant shall, with reference to Section 8 and Annex 21 of the TM, propose a demolition and construction noise management plan so that both the verification of the inventory of noise sources, and the assessment of the effectiveness and practicality of all identified measures for mitigating the demolition and construction noise impact of the project, would be performed during the design, tendering and implementation stage of the demolition and construction works.

3. Marine Traffic Noise Impact Assessment

3.1 Marine Traffic Noise Impact Assessment Methodology

3.1.1 The Applicant shall propose methodology and computation model which shall be agreed with the Director, with reference to Section 4.4.2 of the TM, prior to the commencement of the assessment.

3.2 Identification of Marine Traffic Noise Impact

3.2.1 Identification of Assessment Area and Noise Sensitive Receivers

- (a) The Applicant shall propose the assessment area for agreement of the Director before commencing the assessment.
- (b) The Applicant shall identify all existing, committed and planned NSRs in the assessment area and select assessment points to represent identified NSRs for carrying out marine traffic noise impact assessment described below.
- (c) The assessment points shall be confirmed with the Director prior to the commencement of the marine traffic noise impact assessment and may be varied subject to the best and latest information available during the course of the EIA study.
- (d) A map showing the location and description such as name of building, use, and floor of each and every selected assessment point shall be given. Photographs of existing NSRs shall be appended to the EIA report.
- (e) For planned noise sensitive land uses without committed site layouts, the Applicant should use the relevant landuse and planning parameters and conditions to work out representative site layouts for marine traffic noise impact assessment purpose. However, such parameters and conditions together with any constraints identified shall be confirmed with the relevant responsible parties including Planning Department and Lands Department.

3.2.2 Inventory of Noise Sources

- (a) The Applicant shall identify and quantify any marine traffic noise sources including noise from transportation of construction equipment, major components and waste generated during the decommissioning and construction phases via marine route within the assessment area. Noise sources to be included in marine traffic noise impact assessment shall be confirmed with the Director prior to the commencement of the assessment.

3.3 Prediction and Evaluation of Marine Traffic Noise Impact

3.3.1 Scenarios

- (a) The Applicant shall assess the marine traffic noise impact of the Project, with respect proposed criteria which the applicant shall submit for agreement with the Director (with reference to section 4.4.2(c) of the TM), of unmitigated scenario and mitigated scenario of various modes including:
 - (i) the worst mode which represents the maximum noise emission in connection of identified noise sources; and
 - (ii) any other modes as confirmed with the Director.

3.3.2 Prediction of Noise Impact

- (a) The Applicant shall present the predicted noise levels at the selected assessment points at various representative floor levels (in m P.D.) on tables and plans of suitable scale.
- (b) The assessment shall cover the cumulative marine traffic noise impact associate with the decommissioning and construction of the Project on existing, committed and planned NSRs within the assessment area.
- (c) The potential marine traffic noise impact under different scenarios shall be quantified by estimating the total number of dwellings, classrooms and other noise sensitive receivers that will be exposed to noise impact exceeding the adopted criteria.

3.4 Mitigation of Marine Traffic Noise Impact

3.4.1 Direct Mitigation Measures

- (a) Where the predicted marine traffic noise impact exceeds the proposed criteria, the Applicant shall consider and evaluate direct mitigation measures including noise barrier/enclosure, screening by noise tolerant buildings, etc. The feasibility, practicability, programming and effectiveness of the recommended mitigation measures shall be assessed. Any direct mitigation measures recommended should be well documented in the report. Specific reasons for not adopting certain direct mitigation measures to reduce the noise to a level meeting the proposed criteria should be clearly substantiated and documented in the EIA report.

3.5 Evaluation of Residual Marine Traffic Noise Impact

- 3.5.1 Upon exhaust of direct mitigation measures, if the mitigated noise impact still exceeds the adopted criteria, the Applicant shall identify, predict and evaluate the residual marine traffic noise impact in accordance with section 4.4.3 of the TM and estimate the total number of dwellings, classrooms and other noise sensitive receivers that will be exposed to residual noise impact exceeding the adopted criteria.

4. Fixed Noise Sources Impact Assessment

4.1 Fixed Noise Sources Impact Assessment Methodology

The Applicant shall carry out fixed noise sources impact assessment from the Project in accordance with the methodology in paragraph 5.2 of Annex 13 of the TM.

4.2 Identification of Fixed Noise Sources Impact

4.2.1 Identification of Assessment Area and Noise Sensitive Receivers (NSRs)

- (a) The Applicant shall propose the assessment area for agreement of the Director before commencing the assessment. The assessment area for the fixed noise impact shall generally include areas within 300 metres from the boundary of the Project and the works of the Project.
- (b) The Applicant shall identify all existing, committed and planned NSRs in the assessment area and select assessment points to represent identified NSRs for carrying out fixed noise sources impact assessment described below.
- (c) The assessment points shall be confirmed with the Director prior to the commencement of the quantitative fixed noise sources impact assessment and may be varied subject to the best and latest information available during the course of the EIA study.
- (d) A map showing the location and description such as name of building, use, and floor of each and every selected assessment point shall be given. Photographs of existing NSRs shall be appended to the EIA report.
- (e) For planned noise sensitive land uses without committed site layouts, the Applicant should use the relevant land use and planning parameters and conditions to work out representative site layouts for fixed noise sources impact assessment purpose. However, such parameters and conditions together with the representative site layouts and any constraints identified shall be confirmed with the relevant responsible parties including Planning Department and Lands Department.

4.2.2 Inventory of Noise Sources

- (a) The Applicant shall identify and quantify an inventory of noise sources for fixed noise sources impact assessment. The inventory of noise sources shall include noise associated with any permanent and temporary industrial noise sources.
- (b) The Applicant shall provide document or certificate, with a methodology accepted by recognised national/international organisation, for the sound power level of each type of fixed noise sources.
- (c) Validity of the inventory shall be confirmed with the relevant government departments/authorities and documented in the EIA report.

4.3 Prediction and Evaluation of Fixed Noise Sources Impact

4.3.1 Scenarios

- (a) The Applicant shall quantitatively assess the fixed noise sources impact of the Project, with respect to the criteria set in Annex 5 of the TM, of unmitigated scenario and mitigated scenario at assessment year of various operation modes including,
 - (i) the worst operation mode which represents the maximum noise emission in connection of identified noise sources of the Project; and
 - (ii) any other operation modes as confirmed with the Director.
- (b) Validity of the above operation modes shall be confirmed with relevant departments/authorities and documented in the EIA report.

4.3.2 Prediction of Noise Impact

- (a) The Applicant shall present the predicted noise levels in Leq (30 min) dB(A) at the selected assessment points at various representative floor levels (in m P.D.) on tables and plans of suitable scale.
- (b) The assessment shall cover the cumulative fixed noise sources impact associated with the operation of the Project on existing, committed and planned NSRs within the assessment area.
- (c) The potential fixed noise sources impact under different scenarios shall be quantified by estimating the total number of dwellings, classrooms and other noise sensitive receivers that will be exposed to noise impact exceeding the criteria set in Annex 5 in the TM.

4.4 Mitigation of Fixed Noise Sources Impact

4.4.1 Direct Mitigation Measures

Where the predicted fixed noise sources impact exceeds the criteria set in Table 1A of Annex 5 of the TM, the Applicant shall consider and evaluate direct mitigation measures including noise barrier/enclosure, screening by noise tolerant buildings, etc. The feasibility, practicability, programming and effectiveness of the recommended mitigation measures shall be assessed. Any direct mitigation measures recommended shall be well documented in the report. Specific reasons for not adopting certain direct mitigation measures to reduce the noise to a level meeting the criteria in the TM or to maximise the protection for the NSRs as far as possible should be clearly substantiated and documented in the EIA report.

4.5 Evaluation of Residual Fixed Noise Sources Impact

Upon exhaust of direct mitigation measures, if the mitigated noise impact still exceeds the relevant criteria in Annex 5 of the TM, the Applicant shall identify, predict, evaluate the residual fixed noise sources impact in accordance with section 4.4.3 of the TM and estimate the total number of existing dwellings, classrooms and other noise sensitive elements that will be exposed to residual noise impact exceeding the criteria set in Annex 5 in the TM.

Appendix D**Requirements for Water Quality Impact Assessment**

1. The Applicant shall identify and analyse physical, chemical and biological disruptions of the water system(s) arising from the decommissioning and construction of the Project.
2. The Applicant shall predict, quantify and assess any water quality impacts arising from the decommissioning and construction of the Project.
3. The assessment shall include the following:
 - (i) the water quality impacts of effluent generated during the decommissioning and construction stages such as site runoff, sewage generated from the workforce, accidental leakages and those specified in the ProPECC PN 1/94; and
 - (ii) the water quality impacts on watercourses and other water sensitive receivers which may be affected by the Project.
4. The Applicant shall address water quality impacts due to the decommissioning and construction phases of the Project. Essentially, the assessment shall address the following :
 - (i) collect and review background information on affected existing and planned water systems, their respective catchments and sensitive receivers which might be affected by the Project;
 - (ii) characterise water quality of the water systems and sensitive receivers, which might be affected by the Project based on existing best available information and through appropriate site survey and tests when existing data are insufficient;
 - (iii) identify and analyse relevant existing and planned future activities, beneficial uses and water sensitive receivers related to the affected water system(s). The Applicant should refer to, *inter alia*, those developments and uses earmarked on the relevant Outline Zoning Plans, Development Permission Area Plans, Outline Development Plans and Layout Plans, and any other relevant published land use plans;
 - (iv) identify pertinent water quality objectives and establish other appropriate water quality criteria or standards for the water system(s) and the sensitive receivers identified in (i), (ii) & (iii) above;

- (v) review the specific demolition and construction methods of the Project to identify and predict the likely water quality impacts arising from the Project;
- (vi) identify and quantify existing and likely future water pollution sources, including point discharges and non-point sources discharges to the water systems, sewage from the workforce and wastewater generated from the decommissioning and construction of the Project;
- (vii) provide an emission inventory on the quantities and characteristics of those existing and future pollution sources in the study area. Field investigation and laboratory test, shall be conducted as appropriate to fill relevant information gaps;
- (viii) predict and quantify the impacts on the water system(s) and its/their sensitive receivers due to the pollution sources identified in (vi) above. The prediction shall take into account and include possible different decommissioning and construction stages of the Project;
- (ix) assess the cumulative impacts due to other related concurrent and planned projects, activities or pollution sources within the assessment area that may have a bearing on the environmental acceptability of the Project;
- (x) analyse the provision and adequacy of existing and planned future facilities to reduce pollution arising from the point and non-point sources identified in (vi) above;
- (xi) develop effective demolition and construction methods, contingency/emergency response plan, water pollution prevention and mitigation measures to be implemented during decommissioning and construction stages, so as to handle any wastewater discharge and accidental leakage from the Project, and to reduce the water quality impacts to within standards. Requirements to be incorporated in the Project contract document shall also be proposed;
- (xii) investigate and develop best management practices and mitigation measures to reduce storm water, non-point source pollution, during decommissioning and construction as appropriate; and
- (xiii) evaluate and quantify residual impacts on water system(s) and the sensitive receivers with regard to the appropriate water quality objectives, criteria, standards or guidelines.

Appendix E**Requirements for Assessment of Waste Management Implications**

The assessment of waste management implications shall cover the following:

1. Analysis of Activities and Waste Generation

- (i) The Applicant shall identify the quantity, quality and timing of the wastes arising as a result of the decommissioning, construction and operation activities of the Project based on the sequence and duration of these activities, e.g. any construction and demolition (C&D) materials, chemical waste and other wastes which will be generated during decommissioning, construction and operation stages.
- (ii) The Applicant shall adopt appropriate design, general layout, demolition and construction methods, and programme to minimise the generation of public fill/inert C&D materials and maximise the use of public fill/inert C&D materials for other construction works.

2. Proposal for Waste Management

- (i) Prior to considering the disposal options for various types of wastes, opportunities for reducing waste generation, on-site or off-site re-use and recycling shall be fully evaluated. Measures that can be taken in the planning and design stages e.g. by modifying the design approach, and in the decommissioning and construction stages for maximising waste reduction shall be separately considered;
- (ii) After considering the opportunities for reducing waste generation and maximising re-use, the types and quantities of the wastes required to be disposed of as a consequence shall be estimated and the disposal methods/options for each type of wastes shall be described in detail. The disposal methods/options recommended for each type of wastes shall take into account the result of the assessment in section (iv) below;
- (iii) The EIA report shall state the transportation routings and the frequency of the trucks/vessels involved, any barging point or conveyor system to be used, the stockpiling areas and the disposal outlets for the wastes identified; and
- (iv) The impact caused by handling (including stockpiling, labelling, packaging & storage), collection, transportation and re-use/disposal of wastes shall be addressed in detail and appropriate mitigation measures shall be proposed. This assessment shall cover the following areas:
 - potential hazard;
 - air and odour emissions;
 - noise;
 - wastewater discharge; and
 - public transport.

Appendix F**Requirements for Land Contamination Assessment**

1. The Applicant shall identify the potential land contamination site(s) within the Project area (Appendix A refers) and, if any, within the boundaries of associated areas (e.g. work areas) of the Project.
2. The Applicant shall provide a clear and detailed account of the present land use (including description of the activities, chemicals and hazardous substances handled, with clear indication of their storage and location, by reference to a site layout plan) and a complete past land uses history, in chronological order, in relation to possible land contamination (including accident records and change of land use(s) and the like).
3. If any contaminated land uses as stated in Sections 3.1 and 3.2 of Annex 19 in the TM are identified, the Applicant shall carry out the land contamination assessment as detailed from sub-sections (i) to (iii) below and propose measure(s) to avoid disposal:
 - (i) During the course of the EIA study, the Applicant shall submit a Contamination Assessment Plan (CAP) to the Director for endorsement prior to conducting an actual contamination impact assessment of the land or site(s). The CAP shall include proposal with details on representative sampling and analysis required to determine the nature and the extent of the contamination of the land or site(s). Alternatively, the Applicant may refer to other previously agreed and still relevant and valid CAP(s) for the concerned site(s).
 - (ii) Based on the endorsed CAP, the Applicant shall conduct a land contamination impact assessment and submit a Contamination Assessment Report (CAR) to the Director for endorsement. If land contamination is confirmed, a Remediation Action Plan (RAP) to formulate viable remedial measures with supporting documents, such as agreement by the relevant facilities management authorities, shall be submitted to the Director for approval. The Applicant shall then clean up the contaminated land or site(s) according to the approved RAP, and a Remediation Report (RR) to demonstrate adequate clean-up should be prepared and submitted to the Director for endorsement prior to the commencement of any development or redevelopment works within the Study Area. The CAP, CAR and RAP shall be documented in the EIA report.
 - (iii) If there are potential contaminated sites which are inaccessible for conducting sampling and analysis during the course of the EIA study, e.g. due to site access problem, the Applicant's CAP shall include:
 - (a) a review of the available and relevant information;
 - (b) an initial contamination evaluation of these sites and possible

remediation methods;

- (c) a confirmation of whether the contamination problem at these sites would be surmountable;
- (d) a sampling and analysis proposal which shall aim at determining the nature and the extent of the contamination of these sites; and
- (e) where appropriate, a schedule of submission of revised or supplementary CAP, CAR, RAP and RR as soon as these sites become accessible.

Appendix H**Requirements for EIA Report Documents**

1. The Applicant shall supply the Director with the following number of copies of the EIA report and the executive summary:
 - (i) 30 copies of the EIA report and 30 copies of the bilingual (in both English and Chinese) executive summary as required under section 6(2) of the EIAO to be supplied at the time of application for approval of the EIA report.
 - (ii) When necessary, addendum to the EIA report and the executive summary submitted in item (i) above as required under section 7(1) of the EIAO, to be supplied upon advice by the Director for public inspection.
 - (iii) 30 copies of the EIA report and 50 copies of the bilingual (in both English and Chinese) executive summary with or without Addendum as required under section 7(5) of the EIAO, to be supplied upon advice by the Director for consultation with the Advisory Council on the Environment.
2. To facilitate public inspection of EIA report via EIAO Internet Website, the Applicant shall provide electronic copies of both the EIA report and the executive summary prepared in HyperText Markup Language (HTML) and in Portable Document Format (PDF), unless otherwise agreed by the Director. For both of the HTML and PDF versions, a content page capable of providing hyperlink to each section and sub-section of the EIA report and the executive summary shall be included in the beginning of the document. Hyperlinks to figures, drawings and tables in the EIA report and the executive summary shall be provided in the main text from where respective references are made. The EIA report, including drawings, tables, figures and appendices shall be viewable by common web-browsers including Internet Explorer 8, Firefox 23, Chrome and Safari 8 or later versions as agreed by the Director, and support languages including Traditional Chinese, Simplified Chinese and English.
3. The electronic copies of the EIA report and the executive summary shall be submitted to the Director at the time of application for approval of the EIA report.
4. When the EIA report and the executive summary are made available for public inspection under section 7(1) of the EIAO, the content of the electronic copies of the EIA report and the executive summary must be the same as the hard copies and the Director shall be provided with the most updated electronic copies.
5. To promote environmentally friendly and efficient dissemination of information, both hardcopies and electronic copies of future EM&A reports recommended by the EIA study shall be required and their format shall be agreed by the Director.