

本署檔號
OUR REF: () in EP2/N9/L/159 Pt.4
來函檔號
YOUR REF:
電話
TEL. NO.: 2835 1868
圖文傳真
FAX NO: 2591 0558
電子郵件
E-MAIL: terence_tsang@epd.gov.hk
網址
HOMEPAGE: <http://www.epd.gov.hk>

**Environmental Protection Department
Branch Office**

28th Floor, Southern Centre,
130 Hennessy Road,
Wan Chai, Hong Kong.



環境保護署分處

香港灣仔
軒尼詩道
一百三十號
修頓中心廿八樓

5 October 2018

CLP Power Hong Kong Limited

Environmental Impact Assessment (EIA) Ordinance, Cap. 499
Application for Environmental Permit
Project Title: Hong Kong Offshore LNG Terminal
(Application No. AEP-558/2018)

I refer to your above application received on 11 May 2018 for an environmental permit under Section 10(1) of the EIA Ordinance.

Pursuant to Section 10(5) of the EIA Ordinance, I now issue the attached Environmental Permit (No. EP-558/2018) for your use.

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

Please note that if you are aggrieved by any of the conditions imposed in this Permit, you may appeal under Section 17 of the EIA Ordinance within 30 days of receipt of this Permit.

Should you have any queries on the above application, please contact my colleague Mr. Matthew CHAN at 2835 1155.

Yours sincerely,

(Terence S. W. TSANG)
Principal Environmental Protection Officer
for Director of Environmental Protection

ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE
(CHAPTER 499)
SECTION 10
環境影響評估條例
(第 499 章)
第 10 條

ENVIRONMENTAL PERMIT TO CONSTRUCT AND OPERATE
A DESIGNATED PROJECT
建造及營辦指定工程項目的環境許可證

PART A (MAIN PERMIT)
A 部 (許可證主要部分)

Pursuant to Section 10 of the Environmental Impact Assessment Ordinance (EIAO), the Director of Environmental Protection (the Director) grants this environmental permit to the **CLP Power Hong Kong Limited** (hereinafter referred to as the “Permit Holder”) to construct and operate the designated project described in Part B subject to the conditions specified in Part C. The issue of this environmental permit is based on the documents, approvals or permissions described below:

根據《環境影響評估條例》(環評條例) 第 10 條的規定，環境保護署署長(署長)將本環境許可證批予**中華電力有限公司**(下稱“許可證持有人”)以建造及營辦 B 部 所說明的指定工程項目，但須遵守 C 部 所列明的條件。本環境許可證的發出，乃以下表所列的文件、批准或許可作為根據：

Application No. 申請書編號:	AEP-558/2018
Document in the Register: 登記冊上的文件:	(1) Hong Kong Offshore LNG Terminal (Register No. AEIAR-218/2018) -Environmental Impact Assessment Report [Hereinafter referred to as the “EIA Report”] -EIA Executive Summary [Hereinafter referred to as the “EIA Executive Summary”] -Environmental Monitoring and Audit Manual [Hereinafter referred to as the “EM&A Manual”] 香港海上液化天然氣接收站 (登記冊檔號: AEIAR-218/2018) -環境影響評估報告 [下稱「環評報告」] -環境影響評估報告行政摘要 [下稱「環評行政摘要」] -環境監察及審核手冊 [下稱「環監手冊」]



Application No. 申請書編號:	AEP-558/2018
Document in the Register: 登記冊上的文件:	(2) The Director's letter of approval of the EIA Report dated 5 October 2018 (Reference : EP2/N9/L/159) 署長於 2018 年 10 月 5 日發出批准環評報告的信件 (檔案編號: EP2/N9/L/159) (3) Application for Environmental Permit submitted by the Permit Holder on 11 May 2018 (Application No. AEP-558/2018) 許可證持有人於 2018 年 5 月 11 日提交的環境許可證申請文件 (申請書編號: AEP-558/2018)

5 October 2018
2018 年 10 月 5 日

Date
日期



(Terence S.W. TSANG)
Principal Environmental Protection Officer
for Director of Environmental Protection
環境保護署署長
(首席環境保護主任曾世榮代行)



PART B (DESCRIPTION OF DESIGNATED PROJECT)

B 部 (指定工程項目的說明)

Hereunder is the description of the designated project mentioned in Part A of this environmental permit (hereinafter referred to as the "Permit"):

下列為本環境許可證(下稱“許可證”) A 部 所提述的指定工程項目的說明:

Title of Designated Project 指定工程項目的名稱	Hong Kong Offshore LNG Terminal [This designated project is hereinafter referred to as "the Project".] 香港海上液化天然氣接收站 [本指定工程項目下稱 "工程項目"]
Nature of Designated Project 指定工程項目的性質	(i) Dredging operations which are less than 500m from the nearest boundary of the existing or planned marine parks (Item C.12 of Part I of Schedule 2 of EIAO); 距離現有的或計劃中的海岸公園的最近界線少於 500 米的挖泥作業 (環評條例附表 2 第 I 部 C.12 項) ; (ii) Submarine gas pipelines (Item H.2 of Part I of Schedule 2 of EIAO); and 海底氣體管道 (環評條例附表 2 第 I 部 H.2 項) ; 以及 (iii) A storage, transfer and trans-shipment of liquefied natural gas (LNG) facility with a storage capacity of not less than 200 tonnes (Item L.2 of Part I of Schedule 2 of EIAO). 貯存量不少於 200 公噸的液化天然氣貯存、輸送和轉運設施 (環評條例附表 2 第 I 部 L.2 項) 。
Location of Designated Project 指定工程項目的地點	The location of the Project is shown in Figure 1 of this Permit. 工程項目的地點見本許可證 圖1 。
Scale and Scope of Designated Project 指定工程項目的規模和範圍	The Project includes the construction and operation of the following key infrastructural facilities: - 工程項目包括建造和營運下列各項主要基礎設施: - - a Floating Storage and Regasification Unit (FSRU) vessel equipped with LNG storage tanks of about 270,000 m ³ in total storage capacity and regasification equipment; 一艘裝有液化天然氣儲存設施和再氣化裝置的浮式儲存再氣化裝置船, 其總液化天然氣儲存量約為 270,000 立方米; - a double berth jetty with footprint of about 2.5 hectares and mooring facilities for the FSRU vessel and LNG carriers; 一個雙泊位碼頭, 其總平面面積約為 2.5公頃, 並配備



	<p>為浮式儲存再氣化裝置船和液化天然氣運輸船而設的繫泊設施；</p> <ul style="list-style-type: none">- two subsea gas pipelines connecting the FSRU facility with the Black Point Power Station (BPPS) and the Lamma Power Station (LPS) respectively; and 兩條海底天然氣管道，從海上液化天然氣接收站，分別連接至龍鼓灘發電廠和南丫發電廠；及- Gas Receiving Stations (GRSs) located entirely within the BPPS and LPS respectively. 分別完全位於龍鼓灘發電廠和南丫發電廠範圍內的天然氣接收站。
--	--



PART C (PERMIT CONDITIONS)

GENERAL CONDITIONS

- 1.1 The Permit Holder and any person working on the Project shall comply with all conditions set out in this Permit. Any non-compliance by any person may constitute a contravention of the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) and may become the subject of appropriate action being taken under the EIAO.
- 1.2 The Permit Holder shall ensure full compliance with all legislation from time to time in force including, without limitation to, the Gas Safety Ordinance (Cap. 51), Dangerous Goods Ordinance (Cap. 295), Air Pollution Control Ordinance (Cap. 311), Waste Disposal Ordinance (Cap. 354), Water Pollution Control Ordinance (Cap. 358), Noise Control Ordinance (Cap. 400) and Marine Parks Ordinance (Cap. 476). This Permit does not of itself constitute any ground of defence against any proceedings instituted under any legislation or imply any approval under any legislation.
- 1.3 The Permit Holder shall make copies of this Permit together with all documents referred to in this Permit and the documents referred to in Part A of the Permit readily available at all times for inspection by the Director or his authorised officers at all sites/offices covered by this Permit. Any reference to the Permit shall include all documents referred to in the Permit and also the relevant documents in the Register.
- 1.4 The Permit Holder shall give a copy of this Permit to the person(s) in charge of the site(s) and ensure that such person(s) fully understands all conditions and all requirements incorporated in the Permit. The site(s) refers to site(s) of construction and operation of the Project and shall mean the same hereafter.
- 1.5 The Permit Holder shall display conspicuously a copy of this Permit on the Project site(s) at all vehicular site entrances/exits or at a convenient location for public's information at all times. The Permit Holder shall ensure that the most updated information about the Permit, including any amended Permit, is displayed at such locations. If the Permit Holder surrenders a part or the whole of the Permit, the notice he sends to the Director shall also be displayed at the same locations as the original Permit. The suspended, varied or cancelled Permit shall be removed from display at the Project site(s).
- 1.6 The Permit Holder shall construct and operate the Project in accordance with the project description in Part B of this Permit.
- 1.7 The Permit Holder shall ensure that the Project is designed, constructed and operated in accordance with the information and relevant recommendations described in the approved EIA Report (Register No. AEIAR-218/2018), the application documents for Environmental Permit (Application No. AEP-558/2018), other relevant documents in the Register, the information and mitigation measures described in this Permit, mitigation measures to be recommended in the submissions that shall be deposited with or approved by the Director as a result of permit conditions contained in this Permit, and mitigation measures to be recommended under on-going surveillance and monitoring activities during all stages of the Project. Where recommendations referred to in the documents of the Register are not expressly referred to in this Permit, such recommendations are nevertheless to be implemented unless expressly excluded in



this Permit or otherwise agreed by the Director.

- 1.8 All submissions, as required under this Permit, shall be rectified and resubmitted in accordance with the comments, if any, made by the Director within one month of the receipt of the Director's comments or otherwise as specified by the Director.
- 1.9 All submissions approved by the Director, all submissions deposited without comments by the Director, and all submissions rectified in accordance with comments by the Director under this Permit shall be construed as part of the permit conditions described in Part C of this Permit. Any variation of the submissions shall be approved by the Director in writing or as prescribed in the relevant permit conditions. Any non-compliance with the submissions may constitute a contravention of the Environmental Impact Assessment Ordinance (Cap. 499). All submissions or any variation of the submissions shall be certified by the Environmental Team (ET) Leader and verified by the Independent Environmental Checker (IEC) referred to in Conditions 2.1 and 2.2 below before submitting to the Director under this Permit.
- 1.10 The Permit Holder shall release all finalised submissions, as required under this Permit, to the public by depositing copies in the EIAO Register Office, or in any other places, or any internet websites as specified by the Director, or by any means as specified by the Director, for public inspection. For this purpose, the Permit Holder shall provide sufficient copies of the submissions.
- 1.11 All submissions to the Director required under this Permit shall be delivered either in person or by registered mail to the EIAO Register Office (currently at 27/F, Southorn Centre, 130 Hennessy Road, Wanchai, Hong Kong). Electronic copies of all finalized submissions required under this Permit shall be prepared in Hyper Text Markup Language (HTML) (version 4.0 or later) and in Portable Document Format (PDF version 1.3 or later), unless otherwise agreed by the Director and shall be submitted at the same time as the hard copies.
- 1.12 The Permit Holder shall notify the Director in writing the commencement date of construction of the Project no later than 1 month prior to the commencement of construction of the Project. The Permit Holder shall notify the Director in writing immediately if there is any change of the commencement date of construction.
- 1.13 For the purpose of this Permit, "commencement of construction" does not include works related to site clearance and preparation, or other works as agreed by the Director.
- 1.14 The Permit Holder shall notify the Director in writing the commencement date of operation of the Project no later than 1 month prior to the commencement of operation of the Project. The Permit Holder shall notify the Director in writing immediately if there is any change of the commencement date of operation.



SPECIFIC CONDITIONS

2. SUBMISSIONS BEFORE CONSTRUCTION OF THE PROJECT

Employment of Environmental Monitoring and Audit (EM&A) Personnel

- 2.1 An Environmental Team (ET) shall be established by the Permit Holder no later than 3 months before commencement of construction of the Project. The ET shall not be in any way an associated body of the Contractor or the Independent Environmental Checker (IEC) for the Project. The ET shall be headed by an ET Leader and supported by relevant specialists including risk assessment expert(s), qualified ecologist(s) and experienced marine mammal observer(s). The ET Leader shall be a person who has at least 7 years of experience in environmental monitoring and auditing (EM&A) or environmental management. The ET Leader shall be employed on a full time basis to work on the Project onsite, unless otherwise agreed by the Director. The ET and the ET Leader shall be responsible for the implementation of the EM&A programme in accordance with the EM&A requirements as contained in the updated EM&A Manual approved under Condition 2.5 of this Permit. The ET Leader shall keep a contemporaneous log-book of each and every instance or circumstance or change of circumstances, which may affect the compliance with the recommendations of the approved EIA Report (Register No. AEIAR-218/2018) and this Permit. The ET Leader shall notify the IEC within one working day of the occurrence of any such instance or circumstance or change of circumstances. The ET Leader's log-book shall be kept readily available for inspection by all persons assisting in supervision of the implementation of the recommendations of the approved EIA Report (Register No. AEIAR-218/2018) and this Permit or by the Director or his authorized officers. Failure to maintain records in the log-book, failure to discharge the duties of the ET Leader as defined in the updated EM&A Manual or failure to comply with this Condition would entitle the Director to require the Permit Holder by notice in writing to replace the ET Leader. Failure by the Permit Holder to make replacement or further failure to keep contemporaneous records in the log-book despite the employment of a new ET Leader may render the Permit liable to suspension, cancellation or variation.
- 2.2 An IEC shall be employed by the Permit Holder no later than 3 months before commencement of construction of the Project. The IEC shall not be in any way an associated body of the Contractor or the ET for the Project. The IEC shall be a person who has at least 7 years of experience in EM&A or environmental management. The IEC shall be employed on a full time basis to work on the Project onsite, unless otherwise agreed by the Director. The IEC shall be responsible for duties defined in the updated EM&A Manual approved under Condition 2.5 of this Permit, and shall audit the overall EM&A performance, including the implementation of all environmental mitigation measures, submissions required in the updated EM&A Manual, and any other submissions required under this Permit. In addition, the IEC shall be responsible for verifying the environmental acceptability of permanent and temporary works, relevant design plans and submissions under this Permit. The IEC shall verify the log-book(s) mentioned in Condition 2.1 of this Permit. The IEC shall notify the Director by fax or email, within one working day of receipt of notification from the ET Leader of each and every occurrence, change of circumstances or non-compliance with the approved EIA Report (Register No. AEIAR-218/2018) and this Permit, which may affect the monitoring or control of adverse environmental impacts from the Project. In the case where the IEC fails to so notify the Director of



the same, fails to discharge the duties of the IEC as defined in the updated EM&A Manual or fails to comply with this Condition, the Director may require the Permit Holder by notice in writing to replace the IEC. Failure to replace the IEC as directed or further failure to so notify the Director despite employment of a new IEC may render the Permit liable to suspension, cancellation or variation. Notification by the Permit Holder is the same as notification by the IEC for the purpose of this Condition.

Setting Up of Stakeholders Liaison Group

- 2.3 To enhance transparency and communication with the public, the Permit Holder shall, no later than 2 weeks before the commencement of construction of the Project, set up a Stakeholders Liaison Group comprising relevant experts and stakeholders to facilitate communications, enquiries and complaints handling on environmental issues related to the Project. The Permit Holder shall disseminate information to the Stakeholders Liaison Group and promote cooperation and participation of the stakeholders. Relevant information of the Project including the detailed design, construction progress, operation plan and environmental monitoring and audit results shall be provided to the Stakeholders Liaison Group. The Permit Holder shall inform the Director in writing the membership and terms of reference of the Stakeholders Liaison Group. The Permit Holder shall make the papers and documents prepared for the group and minutes of the group meetings available to the public through a website.

Submission of Management Organization

- 2.4 The Permit Holder shall, no later than 1 month before the commencement of construction of the Project, inform the Director in writing the management organization of the ET, the IEC, and the main construction companies and/or any form of joint ventures associated with the construction of the Project. The information shall include at least an organization chart, names of responsible persons and their contact details.

Submission of Updated Environmental Monitoring and Audit Manual

- 2.5 The Permit Holder shall update the EM&A Manual to include the latest EM&A requirements in accordance with the information and recommendations described in the approved EIA Report (Register No. AEIAR-218/2018) and by taking into account any specific site conditions that may be changed before the construction of the Project. The Permit Holder shall, no later than 3 months before the commencement of construction of the Project, submit 3 hard copies and 1 electronic copy of an updated EM&A Manual to the Director for approval. The updated EM&A Manual shall include but not limited to the ecological monitoring on marine mammals, Event/Action Plan for the ecological monitoring, environmental monitoring for commissioning hydrotest for the subsea gas pipelines and Implementation Schedule for the recommended measures in the approved EIA Report (Register No. AEIAR-218/2018). The updated EM&A Manual shall be certified by the ET Leader and verified by the IEC as conforming to the information and recommendations contained in the approved EIA Report (Register No. AEIAR-218/2018), and taking into account any specific requirements with respect to the latest site conditions of the Project. All measures recommended in the updated EM&A Manual approved under this Condition shall be fully and



properly implemented in accordance with the requirements and time schedule(s) set out in the updated EM&A Manual. The EM&A Manual approved under this Condition shall hereinafter be referred to as the “updated EM&A Manual”.

Submission of Location Plan

- 2.6 The Permit Holder shall, no later than 1 month before the commencement of construction of the Project, deposit with the Director 3 hard copies and 1 electronic copy of a location plan of the Project with a scale of 1:1000 or other appropriate scale as agreed with the Director. The location plan shall include but not limited to the details of the works areas and boundaries, location and orientation of the jetty, vertical and horizontal alignments of the subsea pipelines, and locations of the key environmental mitigation measures. The Project shall be constructed in accordance with the information as contained in the deposited location plan.

Submission of Construction Works Schedule

- 2.7 The Permit Holder shall, no later than 1 month before the commencement of construction of the Project, deposit with the Director 3 hard copies and 1 electronic copy of a construction works schedule of the Project. The construction works schedule shall include but not limited to a detailed schedule, sequence and programme of the construction works and key environmental mitigation measures for the Project. The Project shall be constructed in accordance with the information as contained in the deposited construction works schedule.

Submission of Piling Installation Plan

- 2.8 The Permit Holder shall, no later than 1 month before the commencement of construction of the Project, submit 3 hard copies and 1 electronic copy of a piling installation plan of the jetty to the Director for approval. The piling installation plan of the jetty shall include but not limited to the detailed design of the jetty, size of the jetty, type, number and diameter of the piles for the jetty, piling methods, type and number of piling plant, pile striking and penetration details, ramp-up piling procedure and environmental mitigation measures to avoid and minimize environmental impacts during construction of the jetty and underwater noise impact during piling works. The Project shall be designed and constructed in accordance with the information as contained in the approved piling installation plan of the jetty.

Submission of Pipeline Construction Plan

- 2.9 The Permit Holder shall, no later than 1 month before the commencement of construction of the Project, submit 3 hard copies and 1 electronic copy of a pipeline construction plan of the Project to the Director for approval. The pipeline construction plan shall include but not limited to a detailed schedule, sequence and programme of different work fronts for carrying out the dredging and jetting works and cofferdam construction works for laying the subsea gas pipelines of the Project. The programming of the dredging and jetting works shall take into account the peak calving season of Chinese White Dolphin and peak occurrence season of Finless Porpoise, with a view to minimizing the impacts to marine ecology as far as practicable. The dredging and jetting works shall be carried out in accordance



with the information as contained in the approved pipeline construction plan.

Submission of Pipeline Laying Method Plan

- 2.10 The Permit Holder shall, no later than 1 month before the commencement of construction of the Project, deposit with the Director 3 hard copies and 1 electronic copy of a pipeline laying method plan of the Project. The pipeline laying method plan shall include but not limited to the detailed design of the pipeline trenches for laying and burying the subsea gas pipelines, methods for laying and burying the subsea gas pipelines, dredging and jetting rate for laying the subsea gas pipelines, types and numbers of dredging and jetting plants for construction of the Project. No more than one Trailing Suction Hopper Dredger shall be used for construction of the subsea gas pipelines. No more than one jetting machine shall be used for construction of each subsea gas pipeline. The subsea gas pipelines shall be constructed in accordance with the information as contained in the deposited pipeline laying method plan.

Submission of Silt Curtain Deployment Plan

- 2.11 The Permit Holder shall, no later than 1 month before the commencement of marine works including construction of the subsea gas pipelines, deposit with the Director 3 hard copies and 1 electronic copy of a silt curtain deployment plan. The silt curtain deployment plan shall include but not limited to the details of the design, installation, testing, operation and maintenance of the silt curtains to be deployed during construction of the Project to avoid and minimize the water quality impact due to the dredging and jetting works for laying and burying the subsea gas pipelines. Pilot tests on the efficiency of silt curtain system shall be conducted during the early stage of construction to confirm the removal efficiency of the silt curtains. The deposited silt curtain deployment plan shall be fully and properly implemented during construction of the Project.

Submission of Review Report on Finless Porpoise Peak Occurrence Season

- 2.12 The Permit Holder shall review the relevant information and published data, including the long-term marine mammal monitoring programme of the Agriculture, Fisheries and Conservation Department (AFCD), to ascertain the peak occurrence season of Finless Porpoise, with a view to avoiding underwater piling works for jetty construction during the peak occurrence season of the Finless Porpoise. The Permit Holder shall, no later than 1 month before the commencement of construction of the Project, submit 3 hard copies and 1 electronic copy of a review report on the peak occurrence season of Finless Porpoise to the Director for approval. Prior to the submission to the Director, the Permit Holder shall seek agreement from the AFCD on the review findings of the peak occurrence season of Finless Porpoise.

Submission of Baseline Study Report on Phytoplankton, Zooplankton and Benthic Organisms

- 2.13 The Permit Holder shall, no later than 1 month before the commencement of construction for the Project, submit 3 hard copies and 1 electronic copy of baseline study report on phytoplankton, zooplankton & benthic organisms at both the



seawater intake and discharge points of the FSRU vessel to the Director for approval.

Submission of Waste Management Plan

- 2.14 The Permit Holder shall, no later than 1 month before the commencement of construction of the Project, deposit with the Director 3 hard copies and 1 electronic copy of a waste management plan (WMP) for the construction of the Project. The WMP 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 include the recommended mitigation measures on waste management in the approved EIA Report (Register No. AEIAR-218/2018). The WMP shall describe the disposal arrangements and locations of the dredged marine sediments and construction and demolition materials arising from the construction of the Project. Marine dumping permit system and trip ticket system shall be described in the WMP. The deposited WMP shall be fully and properly implemented during construction of the Project.

3. MEASURES TO BE IMPLEMENTED DURING CONSTRUCTION OF THE PROJECT

Measures to Mitigate Water Quality Impact

- 3.1 Dredging and jetting rate for construction of the subsea gas pipelines shall not be higher than the maximum allowable working rate as specified in the pipeline laying method plan deposited under Condition 2.10.
- 3.2 Dredging and jetting works for construction of the subsea gas pipelines shall only be carried out in accordance with the types and numbers of dredging and jetting machines as specified in the pipeline laying method plan deposited under Condition 2.10.
- 3.3 Silt curtains shall be properly installed, tested, operated and maintained during construction of the subsea gas pipelines in accordance with the silt curtain deployment plan deposited under Condition 2.11. Cage-type silt curtain shall be installed enclosing the grab dredger and jetting machine during construction of the subsea gas pipelines. No silt curtain installation shall encroach onto the existing marine parks and the proposed Southwest Lantau Marine Park and South Lantau Marine Park.

Measures to Mitigate Marine Ecological Impact

- 3.4 No working vessels for construction of the Project shall enter into, transit through, stop over or anchor within the existing marine parks and the proposed Southwest Lantau Marine Park and South Lantau Marine Park, unless otherwise agreed by the Director.
- 3.5 Working vessels for construction of the Project shall not be operated at a speed higher than 10 knots when moving within the areas frequented by Chinese White Dolphin or Finless Porpoise, including the waters near Sha Chau and Lung Kwu



Chau Marine Park, the waters at the west of Lantau Island and the waters between Soko Islands and Shek Kwu Chau. The working vessels shall be equipped with tracking devices to record their operating speeds and marine travel routes during construction of the Project. The records shall be submitted weekly to the ET Leader and IEC for review of the acceptability of operating speeds and marine travel routes. The records shall be included in the monthly EM&A Reports. The Director may in consultation with AFCD require the Permit Holder by notice in writing to decrease the operating speeds of the working vessels, to change the marine travel routes of the working vessels and to increase the submission frequency of the records to the ET leader and IEC.

- 3.6 No piling works for construction of the jetty shall be carried out from December to May of the following year (both months inclusive) and in any additional period as identified in the review report of the peak occurrence season of Finless Porpoise approved under Condition 2.12.
- 3.7 No piling works for construction of the jetty shall be carried out from 1900 hours to 0700 hours of the following day.
- 3.8 Piling works shall be ramped up in accordance with the ramp-up piling procedure described in the piling installation plan of the jetty approved under Condition 2.8 to avoid abrupt increase in underwater sound level arising from the piling works for construction of the jetty.
- 3.9 Noise mitigation measures shall be implemented in accordance with the mitigation measures described in the piling installation plan of the jetty approved under Condition 2.8 to reduce the underwater noise impact arising from the piling works for construction of the jetty. The noise mitigation measures shall include the maximum use of quieter vibratory and hydraulic hammering methods for pile installation, acoustic decoupling of noisy equipment at the working vessels and use of structural jacket and bubble curtain to enclose the pile installation works.
- 3.10 A marine mammal exclusion zone of not less than 500m radius from the piling works shall be implemented during the piling works for construction of the jetty. No piling works shall be carried out until the marine mammal exclusion zone is confirmed by an experienced marine mammal observer as clear of marine mammals for 30 minutes continuously. Use of passive acoustic monitoring device shall be explored to assist the marine mammal observer to monitor and detect the marine mammals. The Director may in consultation with AFCD require the Permit Holder by notice in writing to enlarge the marine mammal exclusion zone for the piling works for construction of the jetty.
- 3.11 No construction works for the section of subsea gas pipelines between North of Tai O and Fan Lau shall be carried out in the months of May and June in order to avoid the peak calving season of Chinese White Dolphin. Construction works for the subsea gas pipelines shall be carried out in accordance with the construction programme described in the pipeline construction plan approved under Condition 2.9.
- 3.12 No construction works for the section of subsea gas pipelines between South of Soko Islands and the jetty and between South of Shek Kwu Chau and the jetty shall



be carried out from 1900 hours to 0700 hours of the following day. Construction works for the subsea gas pipelines shall be carried out in accordance with the construction programme described in the pipeline construction plan approved under Condition 2.9.

- 3.13 A marine mammal exclusion zone of not less than 250m radius from the dredging and jetting works shall be implemented during the construction work for the subsea gas pipelines. No dredging or jetting works shall be carried until the marine mammal exclusion zone is confirmed by an experienced marine mammal observer as clear of marine mammals for 30 minutes continuously. Use of passive acoustic monitoring device shall be explored to assist the marine mammal observer to monitor and detect the marine mammals. The Director may in consultation with AFCD require the Permit Holder by notice in writing to enlarge the marine mammal exclusion zone for the dredging and jetting works.

Measures to Manage Wastes

- 3.14 The Permit Holder shall implement the waste management measures in accordance with the information as contained in the waste management plan deposited under Condition 2.14.

4. SUBMISSIONS AND MEASURES FOR OPERATION OF THE PROJECT

Setting Up of Environmental Management System

- 4.1 The Permit Holder shall, before the operation of the Project or otherwise agreed by the Director, develop and implement an environmental management system (EMS) for the operation of the Project. The EMS is to ensure that the operation of the Project is in an environmentally friendly manner and in accordance with all relevant environmental legislation. The EMS shall include but not limited to regular environmental audit of the Project to ensure that it is properly operated and maintained to avoid or minimize any environmental impact. The Permit Holder shall engage an Environmental Manager to oversee and implement the EMS. The Environmental Manager shall be a person who has at least 7 years of experience in Environmental Monitoring and Audit (EM&A) or environmental management. The EMS shall be certified under ISO 14000 within 1 year after the operation of the Project, unless otherwise agreed by the Director.

Measures to Prevent Risk to Life

- 4.2 The Permit Holder shall, no later than 3 months before the commencement of operation of the Project, deposit with the Director 3 hard copies and 1 electronic copy of a safety management plan for the operation of the Project. The safety management plan shall describe the safety management system (SMS) for the operation of the Project and shall include but not limited to information relating to the key safety design features, operation and maintenance procedures, emergency response procedures, marine safety arrangements and procedures and regular safety audit for the operation of the Project. The safety management plan shall also include the delineation, control and implementation details of a marine safety zone around the jetty for the operation of the Project and the operational arrangements



and procedures for adverse weather and met-ocean conditions. The Permit Holder shall fully and properly implement the safety management measures in the deposited safety management plan during operation of the Project.

- 4.3 The Permit Holder shall implement the SMS for the operation of the Project in accordance with the safety management plan deposited under Condition 4.2. The SMS is to ensure that the operation of the Project is in a safe manner and in accordance with all relevant legislation for gas safety and marine safety. The SMS shall include engagement of the relevant experts to oversee and implement the SMS and conduct of regular safety audit for the Project.

Measures for Marine Transit of FSRU Vessel and Project Vessels

- 4.4 The Permit Holder shall, no later than 3 months before the commencement of operation of the Project, deposit with the Director 3 hard copies and 1 electronic copy of the marine routing plan of the FSRU vessel. The marine routing plan of the FSRU vessel shall include but not limited to the information relating to marine routing of FSRU vessel for berthing at and departing from the jetty and the marine routing of FSRU vessel before, during and after adverse weather conditions and emergency situations.
- 4.5 Except the FSRU vessel, no other vessels for operation of the Project shall enter into, transit through, stop over or anchor within the existing or proposed marine parks, unless otherwise agreed by the Director.

Measures for FSRU Seawater Intake and Cooled Seawater Discharge

- 4.6 The Permit Holder shall, no later than 3 months before the commencement of operation of the Project, deposit with the Director 3 hard copies and 1 electronic copy of a design plan of the FSRU seawater intake for operation of the Project. The design plan of the FSRU seawater intake shall include but not limited to the information relating to the design, rate and location of the seawater intake, with a view to preventing and minimising the impingement and entrainment of fisheries resources.
- 4.7 The flow rate of the cooled seawater discharge for operation of the Project shall not be more than 20,000 m³/hr. The total residual chlorine in the cooled seawater discharge shall not be more than 0.5 mg/L. The cooled seawater discharge shall not cause the temperature of the existing marine parks and the proposed Southwest Lantau Marine Park and South Lantau Marine Park to drop by more than 2 degree Celsius below the ambient temperature.

Measures for Emergency Gas Discharge and Accidental Spillage

- 4.8 The Permit Holder shall implement appropriate measures to avoid and minimize the potential impacts on avifauna associated with emergency gas discharge via the vent stack for natural gas during operation of the Project. The Permit Holder shall, no later than 3 months before the commencement of operation of the Project, submit 3 hard copies and 1 electronic copy of the mitigation proposal for avoiding and minimizing the potential impacts on avifauna associated with emergency gas discharge via the vent stack for natural gas to the Director for approval. The



mitigation proposal shall include but not limited to information relating to the measures to avoid and minimize the emergency gas flaring, alternative measures in lieu of emergency gas flaring for depressurization and prior alert measures to the avifauna before emergency gas discharge.

- 4.9 The Permit Holder shall implement measures to prevent accidental spillage or leakage of gas, oil and chemicals during operation of the Project and contingency measures to respond the accidental spillage or leakage in order to avoid and minimize the potential environmental impacts. The Permit Holder shall, no later than 3 months before the commencement of operation of the Project, deposit with the Director 3 hard copies and 1 electronic copy of an emergency response plan. The emergency response plan shall include but not limited to information relating to preventive measures to prevent accidental spillage or leakage of gas, oil and chemicals, contingency measures and procedures to handle the accidental spillage or leakage, rehearsal arrangements for the contingency measures and procedures and reporting arrangements for the accidental spill event.

Enhancement Measures for Marine Ecology & Fisheries

- 4.10 The Permit Holder shall, no later than 3 months before the commencement of operation of the Project, submit 3 hard copies and 1 electronic copy of an environmental enhancement plan to the Director for approval. The environmental enhancement plan shall include but not limited to information relating to the environmental enhancement initiatives for marine ecology and conservation, fisheries resources and sustainable development of the fishing industry, the arrangements to support the environmental enhancement initiatives and to set up an independent management committee consisting of experts, representatives of the fishermen organizations and other stakeholders to oversee the implementation of the environmental enhancement initiatives, and the membership and terms of reference of the independent management committee.

Measures for Maintenance Dredging

- 4.11 The Permit Holder shall seek prior agreement with the Director before carrying out maintenance dredging during operation of the Project. The Permit Holder shall, no later than 6 months before the commencement of maintenance dredging works for the Project, submit 3 hard copies and 1 electronic copy of a maintenance dredging plan to the Director for approval. The maintenance dredging plan shall include but not limited to information relating to the scale and scope of dredging, works programme of dredging and environmental mitigation measures for carrying out the dredging.

5. ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

- 5.1 The Permit Holder shall implement the EM&A programme in accordance with the procedures and requirements as set out in the updated EM&A Manual under Condition 2.5 of this Permit. Any change to the EM&A requirements or programme shall be justified by the ET Leader and verified by the IEC as conforming to the relevant information and requirements set out in the updated EM&A Manual before submission to the Director for approval.



- 5.2 The Permit Holder shall take samples, measurements and necessary remedial actions in accordance with the requirements of the updated EM&A Manual by:
- (i) conducting baseline environmental monitoring;
 - (ii) conducting impact environmental monitoring;
 - (iii) carrying out remedial actions described in the Event/Action Plans of the updated EM&A Manual in accordance with the time frame set out in the Event/Action Plans, or as agreed by the Director, in case where specified criteria in the updated EM&A Manual are exceeded; and
 - (iv) logging and keeping records of the details of (i) to (iii) above for all parameters within 3 working days of the collection of data or completion of remedial action(s), for the purpose of preparing and submitting the monthly EM&A Reports and to make available the information for inspection on site.
- 5.3 The Permit shall submit 3 hard copies and 1 electronic copy of relevant Baseline Monitoring Reports to the Director at least 2 weeks before the commencement of construction of the Project. The submissions shall be certified by the ET Leader and verified by the IEC as having complied with the requirements as set out in the updated EM&A Manual before submission to the Director. Additional copies of the Baseline Monitoring Report shall be provided upon request by the Director.
- 5.4 The Permit Holder shall submit 3 hard copies and 1 electronic copy of Monthly EM&A Reports to the Director, within 2 weeks after the end of the reporting month. The monthly EM&A Reports shall include an executive summary of all environmental audit results, together with actions taken in the event of non-compliance (exceedances) of the environmental quality performance limits (Action and Limit Levels), complaints received and emergency events relating to violation of environmental legislation (such as illegal marine dumping). The submissions shall be certified by the ET Leader and verified by the IEC as having complied with the requirements as set out in the updated EM&A Manual before submission to the Director. Additional copies of the Monthly EM&A Reports shall be provided upon request by the Director.
- 5.5 All environmental monitoring and audit data submitted under this Permit shall be true, valid and correct.
- 5.6 To ensure a high degree of transparency regarding the monitoring data and results in view of the public concern about the Project, all environmental monitoring and audit data and results and all submissions and all performance test data and results required by this Permit shall be made available by the Permit Holder to the public through a dedicated website to be set up by the Permit Holder under Condition 6.2 below, in the shortest practicable time and in no event later than 2 weeks after such information is available.

6. ELECTRONIC REPORTING OF EM&A INFORMATION

- 6.1 To facilitate public inspection of the Baseline Monitoring Report and Monthly EM&A Reports via the EIAO Internet Website and at the EIAO Register Office, electronic copies of these Reports shall be prepared in Hyper Text Markup



Language (HTML) (version 4.0 or later) and in Portable Document Format (PDF version 1.3 or later), unless otherwise agreed by the Director and shall be submitted at the same time as the hard copies as described in Conditions 5.3 and 5.4 of this Permit. For the HTML version, a content page capable of providing hyperlink to each section and sub-section of these Reports shall be included in the beginning of the document. Hyperlinks to all figures, drawings and tables in these Reports shall be provided in the main text from where the respective references are made. All graphics in these Reports shall be in interlaced GIF, JPEG or PDF format unless otherwise agreed by the Director. The content of the electronic copies of these Reports must be the same as the hard copies.

- 6.2 The Permit Holder shall, at least 2 weeks before the commencement of construction of the Project, set up a dedicated Internet website and notify the Director in writing the Internet address where the environmental monitoring data and project information is to be placed. All environmental monitoring data described in Condition 6.1 above shall be made available to the public via the abovementioned dedicated Internet website. All finalized submissions and plans shall be made available to the public via the dedicated Internet website in the shortest possible time and in any event no later than 2 weeks after the submissions and plans are approved by or deposited with the Director, unless otherwise agreed with the Director. The Permit Holder shall maintain the dedicated website for public access of the environmental monitoring data and reports throughout the entire construction period and until 3 years after the last EM&A Report is uploaded, or otherwise as agreed by the Director.
- 6.3 The Internet website as described in Condition 6.2 above shall enable user-friendly public access to the environmental monitoring data and project information including the Project Profile of the Project, the EIA Report, and this Permit. The Internet website shall have features capable of:
- (i) providing access to all environmental monitoring data of this Project collected since the commencement of construction;
 - (ii) providing access to all finalized submissions as required under this Permit;
 - (iii) searching by date;
 - (iv) searching by types of monitoring data; and
 - (v) hyperlinking to relevant monitoring data after searching;
- or otherwise as agreed by the Director.

Notes:

1. This Permit consists of three parts, namely, Part A (Main Permit), Part B (Description of Designated Project) and Part C (Permit Conditions). Any person relying on this permit shall obtain independent legal advice on the legal implications under the EIAO, and the following notes are for general information only.
2. If there is a breach of any condition of this Permit, the Director or his authorized officer may, with the consent of the Secretary for the Environment, order the cessation of associated work until the remedial action is taken in respect of the resultant environmental damage, and in that case the Permit Holder shall not carry out any associated works without the permission of the Director or his authorized officer.








3. The Permit Holder may apply under Section 13 of the EIAO to the Director for a variation of the conditions of this Permit. The Permit Holder shall replace the original permit displayed on the Project site by the amended permit.
4. A person who assumes the responsibility for the whole or a part of the Project may, before he assumes responsibility of the Project, apply under Section 12 of the EIAO to the Director for a further environmental permit.
5. Under Section 14 of the EIAO, the Director may with the consent of the Secretary for the Environment suspend, vary or cancel this Permit. The suspended, varied or cancelled Permit shall be removed from display at the Project site.
6. If this Permit is cancelled or surrendered during the construction or operation of the Project, another environmental permit must be obtained under the EIAO before the Project could be continued. It is an offence under Section 26(1) of the EIAO to construct or operate a designated project listed in Part 1 and 2 of Schedule 2 of the EIAO without a valid environmental permit.
7. Any person who constructs or operates the Project contrary to the conditions in the Permit, and is convicted of an offence under the EIAO, is liable:
 - (i) on a first conviction on indictment to a fine of \$2 million and to imprisonment for 6 months;
 - (ii) on a second or subsequent conviction on indictment to a fine of \$5 million and to imprisonment for 2 years;
 - (iii) on a first summary conviction to a fine at level 6 and to imprisonment for 6 months;
 - (iv) on a second or subsequent summary conviction to a fine of \$1 million and to imprisonment for 1 year; and
 - (v) in any case where the offence is of a continuing nature, the court or magistrate may impose a fine of \$10,000 for each day on which he is satisfied the offence continued.
8. The Permit Holder may appeal against any condition of this Permit under Section 17 of the EIAO within 30 days of receipt of this Permit.
9. The Notes are for general reference only and that the Permit Holder should refer to the EIAO for details and seek independent legal advice.

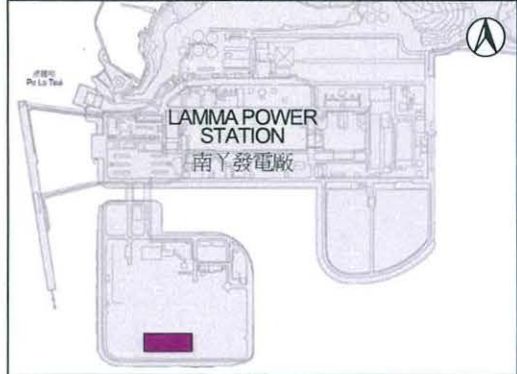
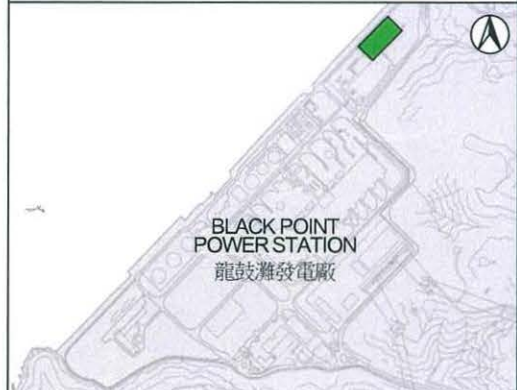
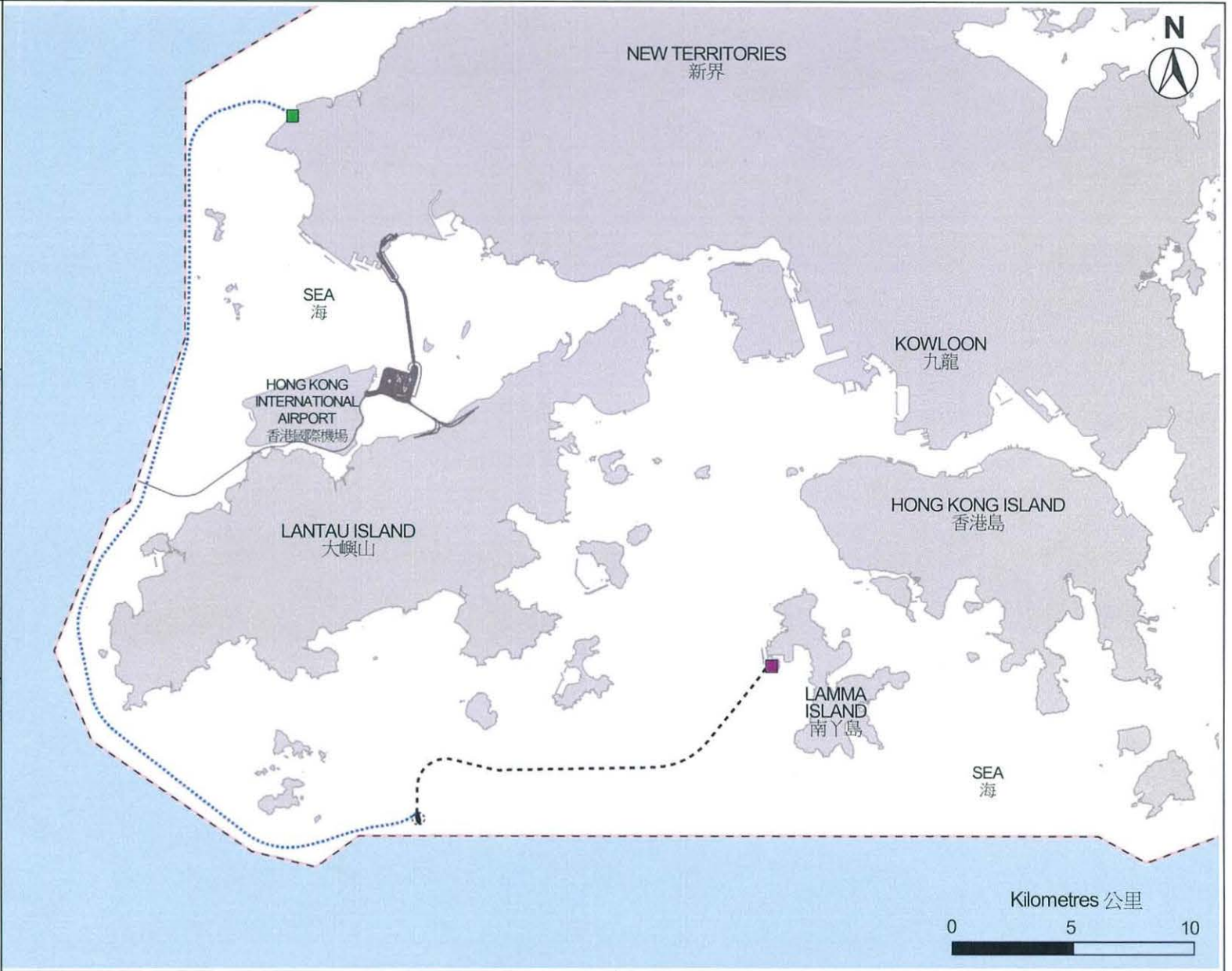
Environmental Permit No. EP-558/2018

環境許可證編號: EP-558/2018



LEGEND 圖例

-  **BOUNDARY OF HKSAR**
香港特別行政區邊界
-  **PROPOSED GAS RECEIVING STATION LOCATION AT BLACK POINT POWER STATION**
擬議龍鼓灘發電廠內的天然氣接收站
-  **PROPOSED GAS RECEIVING STATION LOCATION AT LAMMA POWER STATION**
擬議南丫發電廠內的天然氣接收站
-  **PROPOSED ROUTE OF BLACK POINT POWER STATION PIPELINE**
連接龍鼓灘發電廠的海底管道建議路線
-  **PROPOSED ROUTE OF LAMMA POWER STATION PIPELINE**
連接南丫發電廠的海底管道建議路線
-  **PROPOSED SITE FOR LNG TERMINAL**
擬建海上液化天然氣接收站
-  **PROPOSED LNG TERMINAL SAFETY ZONE**
擬建海上液化天然氣接收站安全區



Project Title:
工程項目名稱：

Hong Kong Offshore LNG Terminal
香港海上液化天然氣接收站

Figure 1
圖 1

Project Location Plan
工程項目位置圖

This Figure was prepared based on Figure 1.1, 3.2 & 3.3 of the approved EIA Report (Register No.: AEIAR-218/2018)

本圖是根據已批准的環評報告(登記冊編號: AEIAR-218/2018)圖 1.1、3.2 及 3.3 編制

Environmental Permit No.: EP-558/2018
環境許可證編號:

