

本署檔號
OUR REF: (88) in Ax(1) to
2/N4/D/118 Pt.3
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:
網址
HOMEPAGE: <http://www.epd.gov.hk>

**Environmental Protection Department
Branch Office**

28th Floor, Southorn 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

14 June 2016

Castle Peak Power Company Limited

**Environmental Impact Assessment (EIA) Ordinance (Cap.499)
Application for Environmental Permit**

**Project Title: Additional Gas-fired Generation Units Project –
Installation of One Additional Gas-fired Generation Unit (CCGT Unit No.1)
at the Black Point Power Station
(Application No. AEP-507/2016)**

I refer to your above application received on 24 February 2016 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-507/2016) 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 concerning the above, please contact Mr. Johnson Wong of this department at 2835 1107.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Terence TSANG', written over a circular stamp or seal.

(Terence TSANG)

Ag. Principal Environmental Protection Officer
for Director of Environmental Protection

Encl.

**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)

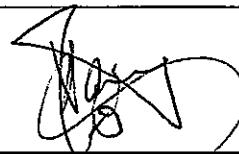
Pursuant to Section 10 of the Environmental Impact Assessment Ordinance (the EIAO), the Director of Environmental Protection (the Director) grants this Environmental Permit to **Castle Peak Power Company Limited** (hereinafter referred to as the "Permit Holder") to construct and operate the designated 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)10 條的規定，環境保護署署長(署長)將本環境許可證批予**青山發電有限公司**(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。本環境許可證是依據下列文件、批准或許可而簽發：

Application No. 申請書編號：	AEP-507/2016
Document in the Register: 登記冊上的文件：	(1) Additional Gas-fired Generation Units Project - Environmental Impact Assessment (EIA) Report, EIA Executive Summary and Environmental Monitoring and Audit (EM&A) Manual (Register No. AEIAR-197/2016) [hereinafter referred to as the "EIA Report"] 新增燃氣發電機組工程 - 環境影響評估(環評)報告、環評行政摘要及環境監察及審核手冊(登記冊編號：AEIAR-197/2016) [下稱「環評報告」]
	(2) The Director's letter of approval of the EIA report dated 7.6.2016 referenced (87) in Ax(1) to EP2/N4/D/118 Pt.3 署長於 2016 年 6 月 7 日發出批准環評報告的信件，檔案編號：(87) in Ax(1) to EP2/N4/D/118 Pt.3
	(3) Application for environmental permit submitted by the Permit Holder on 24.2.2016 (Application No. AEP-507/2016) 許可證持有人於 2016 年 2 月 24 日提交的环境許可證申請(申請書編號 AEP-507/2016)

14 June 2016
2016 年 6 月 14 日

Date
日期



(Terence TSANG)

Ag. Principal Environmental Protection Officer
for Director of Environmental Protection

環境保護署署長

(署理首席環境保護主任曾世榮代行)



PART B (DESCRIPTIONS OF DESIGNATED PROJECTS)**B 部 (指定工程項目的說明)**

Hereunder is the description of the designated projects 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 Projects 指定工程項目的名稱	Additional Gas-fired Generation Units Project - Installation of one additional gas-fired generation unit (CCGT Unit No.1) at the Black Point Power Station [This Designated Project is hereafter referred as "the Project"] 新增燃氣發電機組工程 - 在龍鼓灘發電廠裝設一台新增的燃氣發電機組 (1 號聯合循環燃氣渦輪發電機組) [本指定工程項目下稱「工程項目」]
Nature of Designated Projects 指定工程項目的性質	Public utility electricity power plant 公共事業電力廠
Location of Designated Project 指定工程項目的地點	Black Point Power Station (BPPS). The location of the Project is shown in <u>Figure 1</u> of this Permit. 龍鼓灘發電廠。圖 1 顯示工程的位置
Scale and Scope of Designated Project(s) 指定工程項目的規模和範圍	Construction and operation of one additional gas-fired generation unit at the BPPS, including: (a) Clearance activities within the Project site, including alternation of temporary warehouse; (b) Relocation or demolition of existing facilities/ utilities within the Project site; (c) Site construction, excavation, trenching, modification of existing box culvert supplementary seawater intake, and equipment installation; (d) Civil works and electrical/ mechanical works (including turbines, generator, transformers, heat recovery steam generator and an exhaust stack, etc) for installation of one combined cycle gas turbine (CCGT) unit, its associated auxiliary equipment and supporting facilities and necessary works for enhancement/expansion of existing plant equipment; (e) Installation of cooling water intake facility which includes a newly constructed cooling water pumping station and underground water pipelines, and enhancement of existing electrochlorination system; (f) Installation of cooling water discharge facility which includes underground water pipelines, a new seal pit, and connection between the seal pit and the existing outfall; (g) Operation of one CCGT unit and its associated supporting facilities. 在龍鼓灘發電廠建造及營辦一台新增的燃氣發電機組，包括： (a) 於項目工地內進行工地清理，包括更改臨時倉庫； (b) 於項目工地內遷移或拆除各類現有設施／公用設施； (c) 工地建設、挖掘、壕坑挖掘、改建現有的輔助海水進水口的箱型暗渠、以及安裝設施； (d) 土木、電工及機械工程(包括渦輪、發電機、變壓器、餘熱鍋爐及排氣煙囪等)以安裝一台聯合循環燃氣渦輪發電機組，以及其相關輔助設備及配套設施，提升／擴展現有廠房設施所需的工程； (e) 建造冷卻水進水設施，包括新建的冷卻水泵房及地底輸水管，以及提升現有電解氯化系統；



	<p>(f) 建造一座冷卻水排放設施，包括地底輸水管、密封坑及連接密封坑和現有出水口的管道；</p> <p>(g) 營辦一台聯合循環燃氣渦輪發電機組及其相關設施。</p>
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PART C (PERMIT CONDITIONS)**1. 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 Noise Control Ordinance (Cap.400), Air Pollution Control Ordinance (Cap.311), Water Pollution Control Ordinance (Cap.358) and Waste Disposal Ordinance (Cap.354), Dangerous Goods (General) Ordinance (Cap. 295), Occupational Safety and Health Ordinance (Cap. 509) and Factories and Industrial Undertakings Ordinance (Cap. 59). This Permit does not of itself constitute any ground of defense 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 authorized 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 Project 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 the 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 site(s) at all vehicular site entrances/exits or at a convenient location for public 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 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 recommendations described in the EIA Report (Register no. AEIAR-197/2016); the application documents including all attachments (Application No. AEP-507/2016), other relevant documents in the Register; and the information or mitigation measures described in this Permit, and mitigation measures to be recommended in 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 or impliedly amended in this Permit.
- 1.8 All deposited 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 specified by the Director.



- 1.9 All submissions approved by the Director, all submissions deposited without comments by the Director, or 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 EIAO. 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 submission to the Director under this Permit.
- 1.10 The Permit Holder shall release all finalized 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 other 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 4.0 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(s) of the construction of the Project at least one month prior to the commencement of the construction of the Project. The Permit Holder shall notify the Director in writing immediately if there is any change of the commencement date of the 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.

2. Specific Conditions

Employment of Environmental Monitoring and Audit Personnel

- 2.1 An Environmental Team (ET) shall be established by the Permit Holder no later than one month before the 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. 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 and the ET Leader shall be responsible for the implementation of the EM&A programme in accordance with the requirements as contained in the EM&A Manual of the Project. In addition, the ET Leader shall be responsible for certifying the environmental acceptability of permanent and temporary works, relevant design plans and submissions under 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 EIA Report (Register No. AEIAR-197/2016) 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 EIA Report (Register No. AEIAR-197/2016) 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 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 one month before the 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 responsible for duties defined in the EM&A Manual of the Project and shall audit the overall EM&A programme, including the implementation of all environmental mitigation measures, submissions required in the 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, 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 EIA Report (Register No. AEIAR-197/2016) and this Permit, which might affect the monitoring or control of adverse environmental impacts from the Project. In case the IEC fails to so notify the Director of the same, fails to discharge the duties of the IEC as defined in the 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.

Management Organization of Main Construction Companies

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

Submissions and Measures before and during Construction of the Project

Measures to Mitigate Marine Ecological Impact

- 2.4 At least one month before the commencement of construction of the Project, the Permit Holder shall deposit a Vessel Control Plan to the Director, which shall include the details of the following control measures to be implemented to reduce the potential construction and operation impact from the Project on Indo-Pacific humpback dolphins:
- (a) All vessel operators working on the Project construction will be given briefing, alerting them to the possible presence of dolphins, and the guidelines for safe vessel operation in the presence of cetaceans.
 - (b) The use of high-speed vessels will be avoided as far as possible, and all vessels used in the Project will be required to slow down to 10 knots around the area identified as high presence of dolphin.
 - (c) The vessel operators of the Project will be required to use predefined and regular routes.

The Vessel Control Plan shall be implemented during the construction of the Project.



Submissions and Measures before and during Operation of the Project*The Additional Gas-fired Generation Unit*

- 2.5. The electricity generation capacity of the CCGT Unit No 1 shall not exceed 600 MW.
- 2.6. After the commencement of the operation of the Project, the Permit Holder shall report to the Director on twelve months basis for the first three years of operation with the information to demonstrate that the CCGT Unit No.1 has been operated as a priority plant during the reporting period. The reporting shall be made within three months of the end of each reporting period.

Measures to Mitigate Air Quality Impact

- 2.7. The CCGT Unit No.1 shall use natural gas as primary fuel to minimize the air pollutant emissions.
- 2.8. The exhaust stack of the CCGT Unit No.1 shall be between 80m and 100m high above ground level, or otherwise agreed by the Director, to facilitate effective dispersion of the air pollutants.

Measures to Mitigate Water Quality Impact

- 2.9. At least one month before the commencement of operation of the Project, the Permit Holder shall deposit an Effluent Discharge Plan to the Director, which shall include the details of the following control measures to be implemented during the operation of the Project to ensure that the total average daily loading of batchwise discharge of effluents will not exceed the maximum allowed level of the existing operation in the BBPS:
- (a) Batchwise discharge to allow settlement and removal of part of the pollution load;
 - (b) Laboratory measurements to ensure compliance with the discharge limits before batchwise discharge; and
 - (c) Disposal of effluent from the station effluent treatment plant, oil separator and sewage treatment facility offsite by licensed collector for treatment, if needed.

The Effluent Discharge Plan shall be implemented during the operation of the Project.

Measures to Mitigate Marine Ecological Impact

- 2.10. The Vessel Control Plan deposited under Condition 2.4 above shall be implemented during the operation of the Project.

3. Environmental Monitoring and Audit Requirements

- 3.1. The EM&A programme shall be implemented in accordance with the procedures and requirements as set out in the EM&A Manual. Any changes to the EM&A requirements or programme shall be justified by the ET Leader and verified by the IEC as conforming to the relevant requirements set out in the EM&A Manual and shall seek the prior approval from the Director before implementation.
- 3.2. Four hard copies and one electronic copy of the Monthly EM&A Reports shall be submitted to the Director within two weeks after the end of the reporting month. The submissions shall be certified by the ET Leader and verified by the IEC as complying with the relevant requirements as set out in the EM&A Manual before submission to the Director. Additional copies of the submission shall be provided upon request by the Director.



- 3.3 All environmental monitoring and audit results submitted under this Permit shall be true, valid and correct.

4. Electronic Reporting of EM&A Information

- 4.1 To facilitate public inspection of the 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 Condition 3.2 above 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 format unless otherwise agreed by the Director. The content of the electronic copies of these Reports must be the same as the hard copies.

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 should 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 works 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 construction and operation of the Project, another environmental permit must be obtained under the Ordinance before the Project could be continued. It is an offence under Section 26(1) of the Ordinance to construct and operate a designated project listed in Part I of Schedule 2 of the Ordinance without a valid environmental permit.
7. Any person who constructs and operates the Project contrary to the conditions in the Permit, and is convicted of an offence under the Ordinance, is liable: -
 - (i) on a first conviction on indictment to a fine of \$ 2 million and to imprisonment for 6 months;

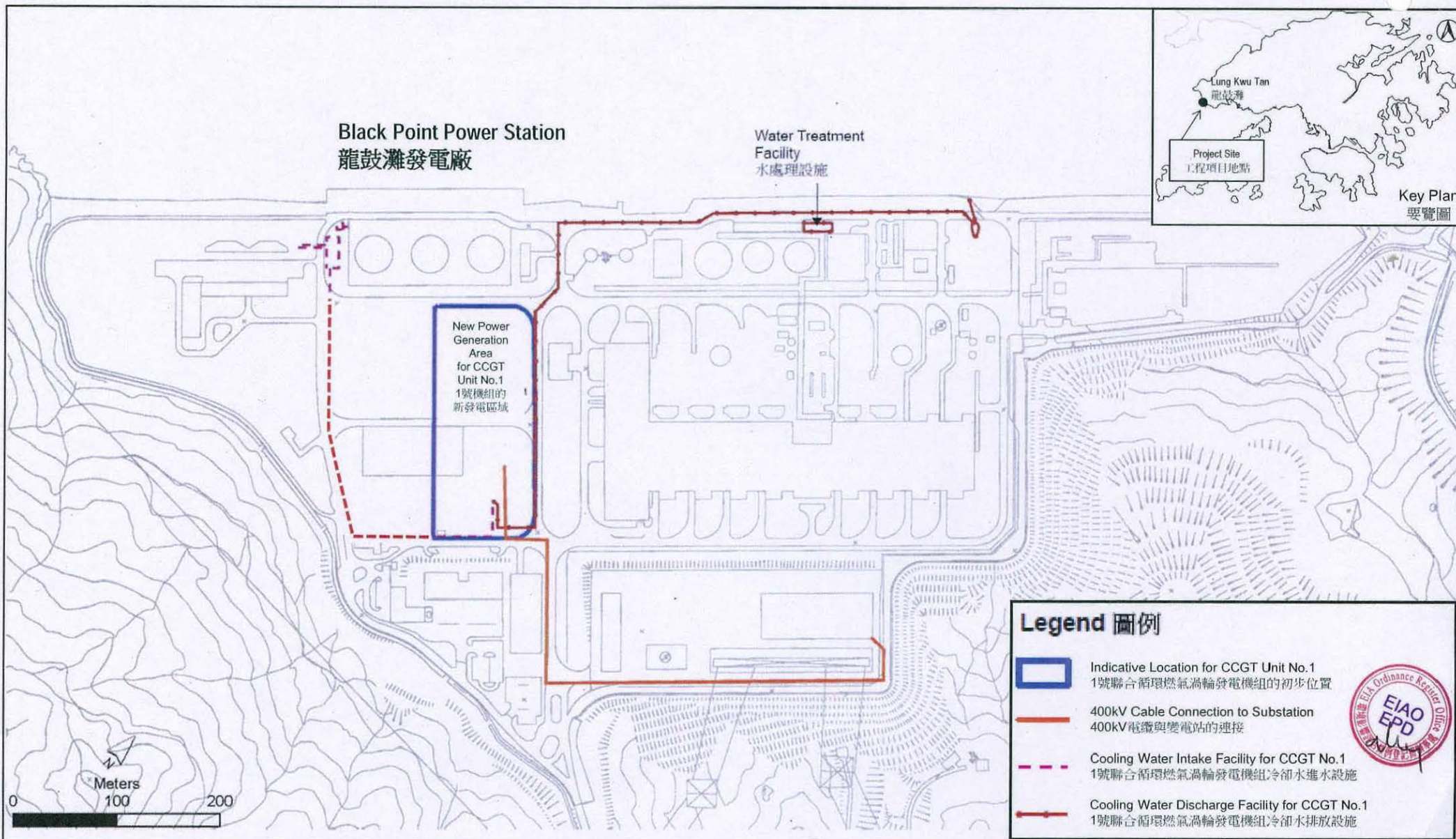


- (ii) on a second or subsequent conviction on indictment to a fine of \$ 5 million and to imprisonment for 2 years;
 - (iii) on a first summary conviction to a fine at level 6 and to imprisonment for 6 months;
 - (iv) on a second or subsequent summary conviction to a fine of \$1 million and to imprisonment 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 Ordinance 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-507/2016

環境許可證編號 EP-507/2016





Additional Gas-fired Generation Units Project -
Indicative Location Plan of Key Project Components for CCGT Unit No.1
新增燃氣發電機組工程 -
1號聯合循環燃氣渦輪發電機組主要工程項目組成部份的初步位置圖

Figure 1
圖1

Environmental Permit No. : EP-507/2016
環境許可証編號 : EP-507/2016

