木翼檔號

OUR REF: EP 2/K19/C/19 Pt.8

來承檔號 YOUR REF:

TEL. NO.: 2835 1122

圖文傳真

FAX NO: 2591 0558

電子郵件 E-MAIL:

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 軒尼詩道 -百三十號

修頓中心廿八樓

9 February 2017

Civil Engineering and Development Department

# Environmental Impact Assessment (EIA) Ordinance, Cap.499 Application for Variation of an Environmental Permit

# Project Title: Dredging Works for Proposed Cruise Terminal at Kai Tak (Application No. VEP-528/2017)

I refer to your above application received on 12 January 2017 for variation of an environmental permit under Section 13(1) of the EIA Ordinance, and the subsequent supplementary information via your letter (Ref: (1JXXS-01) in PW DT/GEN6/01) dated 8 February 2017.

Pursuant to Section 13(5) of the EIA Ordinance, we have amended the Environmental Permit (No. EP-328/2009/A). I attach the Environmental Permit as amended (No. EP-328/2009/B) for your use.

Under Section 15 of the EIA Ordinance, the amended 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 Miss Queenie NG at 2835 1129.

Yours sincerely,

(Tony W.H. CHEUNG) Acting Principal Environmental Protection Officer

for Director of Environmental Protection

# ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE (CHAPTER 499) Section 10 and 13

環境影響評估條例 (第 499 章) 第 10 條及 13 條

# ENVIRONMENTAL PERMIT TO CONSTRUCT A DESIGNATED PROJECT 建造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 the environmental permit EP-328/2009 to <u>Civil Engineering and Development Department</u> (hereinafter referred to as the "Permit Holder") on 2 February 2009. Pursuant to Section 13 of the EIAO, the Director amends the environmental permit (No. EP-328/2009/A) based on the Application No. VEP-528/2017. The amendments, described below, are incorporated into this Environmental Permit (No. EP-328/2009/B). This Environmental Permit as amended is for the construction of the designated project described in <u>Part B</u> subject to the conditions specified in <u>Part C</u>. 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) 於 2009 年 2 月 2 日將環境許可證 (編號 EP-328/2009)批予土木工程拓展署 (下稱"許可證持有人")。根據環評條例第 13 條的規定,署長因應申請編號 VEP-528/2017 修訂環境許可證編號 EP-328/2009/A。下文說明的修訂,已包含在本環境許可證內 (EP-328/2009/B)。本經修訂的環境許可證,適用於建造<u>B</u>部所說明的指定工程項目,但須遵守<u>C</u>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:	VEP-528/2017
Document in the Register: 登記冊上的文件:	(1) Dredging Works for Proposed Cruise Terminal at Kai Tak - Environmental Impact Assessment Report - Environmental Monitoring and Audit Manual - Environmental Impact Assessment Report: Executive Summary Hereinafter referred to as the "EIA Report" (Register No.: AEIAR-115/2007) 擬議啟德郵輪碼頭的挖泥工程 - 環境影響評估報告 - 環境影響評估報告 - 環境影響評估報告 - 環境影響評估報告 - 環境影響評估報告之行政摘要 下稱"環評報告"(登記冊編號 AEIAR-115/2007)
	(2) The Director's letter of approval of the EIA Report dated 19 December 2007 referenced (21) in EP2/K19/C/19 Pt.4 署長於 2007 年 12 月 19 日發出批准環評報告的信件檔案編號 (21) in EP2/K19/C/19 Pt.4
	(3) Application for Environmental Permit received on 14 January 2009 (Application No.: AEP-328/2009) 許可證持有人於 2009 年 1 月 14 日提交的環境許可證申請文件 (申請書編號 AEP-328/2009)

Application No. 申請書編號:	VEP-289/2009
Document in the Register: 登記冊上的文件:	(4) Environmental Permit issued on 2 February 2009 (Permit No. EP-328/2009) 於 2009 年 2 月 2 日發出的環境許可證(許可證編號 EP-328/2009)
	(5) Application for Variation of an Environmental Permit received on 10 June 2009 (Application No.: VEP-289/2009) 許可證持有人於 2009 年 6 月 10 日提交的更改環境許可證申請文件 (申請書編號 VEP-289/2009)
	(6) Application for Variation of an Environmental Permit received on 12 January 2017 (Application No.: VEP-528/2017) 許可證持有人於 2017 年 1 月 12 日提交的更改環境許可證申請文件 (申請書編號 VEP-528/2017)

Application No. 申請書編號	Date of Application 申請日期	List of Amendments Incorporated into Environmental Permit 已包含在環境許可證內的修訂項目	Date of Amendments 修訂日期
VEP-289/2009	10 June 2009 2009年6月10日	Vary Conditions 2.12 and Figure 5 in Part C of EP-328/2009 更改環境許可證編號 EP-328/2009 的 C 部第 2.12 項條件及圖五	15 June 2009 2009年6月15日
VEP-528/2017	12 January 2017 2017年1月12日	Add Condition 2.10 to specify mitigation measures for maintenance dredging works during wet season in Part C of Environmental Permit No. EP-328/2009/A. 在環境許可證編號 EP-328/2009/A 的 C 部新增第 2.10 項條件,以訂明於雨季期間進行維修挖泥工程的緩解措施。	9 February 2017 2017年2月9日
	±1 41	Vary Conditions 2.11 and 2.12 of Environmental Permit No. EP-328/2009/A to specify mitigation measures pertaining to capital dredging works. 更改環境許可證編號 EP-328/2009/A 的 C 部第 2.11 及 2.12 項條件,以訂明適用於建設挖泥工程的緩解措施。	
		Re-number Conditions 2.10 – 2.12 in Part C of Environmental Permit No. EP-328/2009/A as Conditions 2.11 – 2.13 in Part C of Environmental Permit No. EP-328/2009/B.  更改環境許可證編號 EP-328/2009/A 的C 部第 2.10 – 2.12 項條件編號為環境許可證編號 EP-328/2009/B 的C 部第 2.11 – 2.13 項條件。	



9 February 2017 2017年2月9日

Date 日期

(Tony W.H. CHHWNG)
Acting 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 張偉雄代行)

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# 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  $\underline{Part A}$  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	Dredging Works for Proposed Cruise Terminal at Kai Tak [This designated project is referred hereafter as "the Project"]
指定工程項目的名稱	擬議啟德郵輪碼頭的挖泥工程 [本指定工程項目下稱「工程項目」]
Nature of Designated Projects	A dredging operation exceeding 500,000m³.
指定工程項目的性質	挖泥量超過 500,000 立方米的挖泥作業。
Location of Designated Project	Kai Tak. See <u>Figure 1</u> attached to this Permit.
指定工程項目的地點	啟德。參看圖 1。
Scale and Scope of Designated Project(s) 指定工程項目的規模和範圍	(a) Dredging of marine sediment from seabed in the Harbour area off the southern tip of the former Kai Tak Airport runway (dredging area: approx. 57 hectares and dredging depth: up to -12mCD) to provide the necessary water depth within the manoeuvring area for cruise vessels.  從舊啟德機場跑道南端對開海床挖走海泥(挖泥面積:約57公頃及挖泥深度:至-12mCD),以便為郵輪迴旋區提供必要的水深。  (b) Removal and reconstruction of existing seawall of about 1km in length (including 850m berth structure) by dredging at the southern tip of the former Kai Tak Airport runway for cruise berth construction.  透過在舊啟德機場跑道南端挖泥,把長約一千米的現有海堤(包括850米停泊結構)移走及重建,以便建造郵輪泊位。

## 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 (EIA) Ordinance (Cap.499) and may become the subject of appropriate action being taken under the Ordinance.
- 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). This Permit does not of itself (a) constitute any ground of defence against any proceedings instituted under any legislation or (b) 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 or 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 EIA Ordinance Register Office.
- 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 by the Permit. The site(s) refers to site(s) of construction 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) or adjacent works area(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 Project site(s) or adjacent works area(s).
- 1.6 The Permit Holder shall construct 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 and constructed in accordance with the information and all recommendations described in the EIA Report (EIAO Register No. AEIAR-115/2007); 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 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

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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 finalized submissions as required under this Permit, to the public by depositing copies in the Environmental Impact Assessment Ordinance 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 The Permit Holder shall notify the Director in writing the commencement date of construction of the Project (including different stages) no later than one week 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 the construction.
- 1.12 All submissions to the Director required under this Permit shall be delivered either in person or by registered mail to the Environmental Impact Assessment Ordinance Register Office (currently at 27/F, Southorn Centre, 130 Hennessy Road, Wanchai, Hong Kong). Electronic copies of all finalised 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 hardcopies.
- 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 (EM&A) Personnel

An Environmental Team or separate Environmental Teams (ET/ETs) shall be established by the 2.1 Permit Holder for the coral translocation works and / or the dredging works no later than two weeks before commencement of construction of the Project. The ET/ETs shall not be in any way an associated body of the Contractor or the Independent Environmental Checker or the Independent Environmental Checkers (IEC/IECs) for the Project. The ET/ETs shall be headed by an ET Leader/ separate ET Leaders. The ET leader / ET leaders shall be a person / persons who has / have at least 7 years of experience in environmental monitoring and auditing (EM&A) or environmental management. The ET/ETs and the ET Leader/ET Leaders shall be responsible for the implementation of the EM&A programme in accordance with the requirements as contained in the EM&A Manual (Register No. AEIAR-115/2007) of the Project. In addition, the ET Leader/ET Leaders shall be responsible for certifying the environmental acceptability of the relevant permanent and temporary works, relevant design plans and submissions under this Permit. The ET Leader/ET Leaders shall keep a contemporaneous log-book of each and every instance or circumstance or change of circumstances which may affect the environmental impact assessment and each and every non-compliance with the recommendations of the approved EIA Report (Register No. AEIAR-115/2007) or this Permit. The ET Leader/ET Leaders shall notify the IEC/IECs within one working day of the occurrence of any such instance or circumstance or change



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of circumstances. The ET Leader/ET Leaders' 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-115/2007) or 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/ET Leaders 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/ET Leaders. Failure by the Permit Holder to make replacement, or further failure to keep contemporaneous records in the log-book despite the employment of new ET Leader/ET Leaders may render the Permit liable to suspension, cancellation or variation.

- 2.2 An Independent Environmental Checker or separate Independent Environmental Checkers (IEC/IECs) shall be employed by the Permit Holder for the coral translocation works and the dredging works no later than two weeks before commencement of construction of the Project. The IEC/IECs shall not be in any way an associated body of the Contractor or the ET/ETs for the Project. The IEC/IECs shall be a person / persons who has / have at least 7 years of experience in EM&A or environmental management. The IEC/IECs shall be responsible for duties defined in the EM&A Manual (Register No. AEIAR-115/2007) 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/IECs shall be responsible for verifying the environmental acceptability of permanent and temporary works, relevant design plans and submissions under this Permit. The IEC/IECs shall verify the log-book(s) mentioned in Condition 2.1 of this Permit. The IEC/IECs shall notify the Director by fax, within one working day of receipt of notification from the ET Leader/ET Leaders of each and every occurrence, change of circumstances or non-compliance with the approved EIA Report (Register No. AEIAR-115/2007) or this Permit, which might affect the monitoring or control of adverse environmental impacts from the Project. In the case where the IEC/IECs fails to so notify the Director of the same, fails to discharge the duties of the IEC/IECs 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/IECs. Failure to replace the IEC/IECs as directed or further failure to so notify the Director despite employment of new IEC/IECs may render the Permit liable to suspension, cancellation or variation. Notification by the Permit Holder is the same as notification by the IEC/IECs for the purpose of this Condition.
- 2.3 The Permit Holder shall, no later than one week before the commencement of construction of either Stage 1 or Stage 2 of the Project as described in Condition 2.5 of this Permit, inform the Director in writing the management organization of the main construction companies and/ or any form of joint ventures associated with the construction of the Project. The submitted information shall include at least an organization chart, names of responsible persons and their contact details.

#### Measures for Mitigating Water Quality Impact

- 2.4 Only closed grab dredger shall be used for all dredging works of the Project to minimize release of sediment and other contaminants during dredging.
- 2.5 Dredging works shall be carried out in two stages (i.e. Stage 1 & Stage 2) in areas as shown in Figure 1. Dredging works in Stage 2 area shall not be carried out concurrently with the dredging works in Stage 1 area.
- 2.6 For removal of the existing seawall and the seabed (marked red in Figure 1) underneath along the southern tip of the former Kai Tak Airport runway (i.e. Stage 1 dredging area within existing seawall for berth construction as indicated in Figure 1) by dredging, no more than two dredgers shall be used at the same time and the total maximum dredging rate shall not exceed 4,000 m³ per day and 334 m³ per hour. Silt curtain to effectively control sediment dispersion shall be installed around the dredgers at all time when dredging works are in progress. Deployment of silt curtain



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shall involve the use of impervious sheets or filter fabrics combined with floating and anchoring devices to minimize the sediment transport away from the dredging operation. Indicative arrangement for the silt curtain system is shown in Figure 2.

- 2.7 In accordance with Condition 2.5, for removal of marine sediment from seabed (marked yellow and blue in Figure 1) in the Harbour area off the southern tip of the former Kai Tak Airport runway (i.e. Stage 1 dredging area for manoeuvre basin for phase I berth or Stage 2 dredging area for manoeuvre basin for phase II berth as indicated in Figure 1), no more than two dredgers shall be used at the same time during each stage of dredging (i.e. Stages 1 & 2) and the total maximum dredging rate shall not exceed 4,000 m³ per day and 334 m³ per hour.
- 2.8 Throughout the dredging works in Stage 1 area, silt screens shall be installed at the Water Supplies Department's flushing water intakes at Cha Kwo Ling, Sai Wan Ho, Quarry Bay, Sheung Wan, Wan Chai and Tai Wan. Throughout the dredging works in Stage 2 area, silt screens shall be installed at the Water Supplies Department's flushing water intakes at Cha Kwo Ling, Quarry Bay and Tai Wan. Additional silt screens shall be installed at the Water Supplies Department's flushing water intakes at Sai Wan Ho, Sheung Wan and Wan Chai, if the opening at the former Kai Tak Runway commences before the completion of the dredging works in Stage 2 area. The locations of the Water Supplies Department's flushing water intakes are indicated in Figure 3. Installed silt screens shall not affect the normal operation of flushing water intakes and the Permit Holder shall obtain consensus from Water Supplies Department and Marine Department, on the design of the silt screens at each of the above flushing water intakes before installation of the silt screens or commencement of dredging works of the Project. Indicative arrangement for the silt screens at flushing water intake is shown in Figure 4. As a mitigation measure to avoid the pollutant and refuse entrapment problems and to ensure that the water quality monitoring results are representative, regular maintenance of the silt screens and refuse collection shall be performed at the silt screens on a daily basis throughout the dredging works of the Project. The water behind the silt screens shall be kept free from floating rubbish and debris through the water quality monitoring period.
- After completion of the Stage 1 dredging works and before completion of the Stage 2 dredging works, further dredging in Stage 1 area to maintain the necessary water depth within the manoeuvring area for cruise vessels (marked yellow in Figure 1) shall not be carried out concurrently with the dredging works in Stage 2 area and shall not be carried out during the wet season (i.e. April to September). No more than one dredger shall be used and the maximum dredging rate shall not exceed 2,000 m³ per day and 167 m³ per hour.
- 2.10 The Permit Holder shall implement the following mitigation measures when carrying out maintenance dredging works in the areas marked yellow and blue in Figure 1 during wet season (i.e. April to September): -
  - (i) no more than one closed grab dredger shall be used and the maximum dredging rate shall not exceed 2,000 m³ per day and 167 m³ per hour;
  - (ii) silt curtain to effectively control sediment dispersion shall be installed around the closed grab dredger at all time when the maintenance works are in progress. Deployment of silt curtain shall involve the use of impervious sheets or filter fabrics combined with floating and anchoring devices to minimize the sediment transport away from the dredging operation. Indicative arrangement for the silt curtain system is shown in Figure 2;
  - (iii) silt screens shall be installed at the Water Supplies Department's flushing water intakes at Cha Kwo Ling, Sai Wan Ho, Quarry Bay, Sheung Wan, Wan Chai and Tai Wan throughout the maintenance dredging works. The locations of the Water Supplies Department's flushing water intakes are indicated in Figure 3; and
  - (iv) the requirements on the installation and maintenance of silt screens as set out in Condition 2.8 shall be applied to the silt screens as stipulated in Condition 2.10(iii).

## Measures for Waste Management

2.11 At least one month prior to the reuse and/or disposal of dredged materials arising from removal of the existing seawall and the seabed (marked red in Figure 1) underneath along the southern tip of the former Kai Tak Airport runway (dredged materials from seawall removal), the Permit Holder shall deposit with the Director four hard copies and one electronic copy of a Waste Management Plan (WMP) for the dredged materials from seawall removal. The WMP shall be certified by the dredging works ET Leader and verified by the dredging works IEC as conforming to the relevant information and recommendations contained in the approved EIA Report (Register No. AEIAR-115/2007). The WMP shall at least indicate (i) the total amount of the dredged materials from seawall removal; (ii) the quantity of the dredged materials from seawall removal that will be reused on-site; and (iii) the quantity of the dredged materials from seawall removal that will be disposed off-site and the location(s) of the recipient site(s). A trip ticket system shall be included in the WMP for off-site disposal of any dredged materials from seawall removal. The surplus of the dredged materials from seawall removal shall only be disposed of at designated locations unless otherwise approved by the Director. All measures recommended in the approved WMP shall be fully and properly implemented by the Permit Holder and any person working on the Project throughout the construction period.

# Measures for Mitigating Cultural Heritage Impact

2.12 All dredged materials arising from the capital dredging works shall be monitored for the presence of archaeological finds in accordance with the Archaeological Monitoring Brief as set out in Appendix 7.1 of the approved EIA Report (Register No. AEIAR-115/2007), which is reproduced in Annex A of this Permit.

# Measures for Mitigating Marine Ecological Impact

2.13 Prior to commencement of the capital dredging works, coral colonies attached on small rocks and boulders that are manually movable by a diver underwater and are directly affected by the Project as identified in the Coral Translocation Plan (CTP) approved under Condition 2.12 of environmental permit No. 328/2009, shall be translocated to the CTP recommended coral recipient site in Junk Bay where similar hydrographic condition and healthy community of the same coral species were recorded. All translocation activities shall be carried out by experienced marine ecologist(s) to be agreed by the Director and in accordance with the procedures and requirements as set out in the approved CTP. The CTP recommended coral recipient site in Junk Bay is shown in Figure 5.

## 3. Environmental Monitoring and Audit (EM&A) Requirements

- 3.1 The EM&A programme of the Project shall be implemented in accordance with the procedures and requirements as set out in the EM&A Manual of the approved EIA Report (Register No. AEIAR-115/2007) of the Project. 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 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 Baseline Monitoring Report shall be submitted to the Director at least one week before the commencement of construction. The submissions shall be certified by the ET Leader and verified by the IEC as complying with the 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 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 monthly EM&A Reports shall include a summary of all non-compliance with the recommendations in the EIA Report or this

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Permit. The submissions shall be certified by the ET Leader and verified by the IEC as complying with the 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.

- 3.4 All environmental monitoring and audit results submitted under this Permit shall be true, valid and correct.
- 3.5 Any necessary remedial measures and actions as described in the EM&A Manual shall be fully and properly carried out, in accordance with the time frame(s) set out in the EM&A Manual, or as agreed by the Director.

# 4. Electronic Reporting of EM&A Information

4.1 To facilitate public inspection of the Baseline Monitoring Report and 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 the 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 as described in Conditions 3.2 and 3.3 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 Ordinance, and the following notes are for general information only.
- 2. If there is a breach of any conditions 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 Environmental Impact Assessment Ordinance (the "Ordinance") 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 Ordinance to the Director for a further environmental permit.
- Under Section 14 of the Ordinance, 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 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 a designated project listed in Schedule 2 of the Ordinance without a valid environmental permit.
- 7. Any person who constructs the Project contrary to the conditions in the Permit, and is convicted of an offence under the Ordinance, is liable: -
  - 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 EIA Ordinance for details and seek independent legal advice.

Environmental Permit No. EP-328/2009/B 環境許可證編號 EP-328/2009/B

## ARCHAEOLOGICAL MONITORING BRIEF FOR KAI TAK DREDGING

#### INTRODUCTION

The Marine Archaeological Investigation for the proposed dredging works established high archaeological potential for the existence of archaeological remains buried within the sub seabed sediments. During dredging for Kai Tak airport a Ming Cannon was exposed and it is possible that other such artefacts remain buried. Soft marine mud extends 14-20m depth across the study area thereby providing sufficient sediment to bury archaeological remains. The extensive dredging required for the cruise terminal will result in significant disturbance to the seabed. It is therefore recommended that the monitoring brief procedure is followed for all dredging operations.

It is understood that the dredging may take up to a year to complete. It is therefore not cost effective or practical to have a marine archaeologist on the dredging vessel for the whole time. However, it will be essential to have a commissioned qualified marine archaeologist on standby so that they can respond immediately, if required. The archaeologist does not need to be present on site but easily contactable via email or other means. The-marine archaeologist will provide specialist advice and liaise with the Antiquities and Monuments Office (AMO) on behalf of the developer.

It is understood that the contaminated sediment will require confined marine disposal at the East Sha Chau Contaminated Mud Pits and so the monitoring has to take place on the dredging vessel rather than onshore.

The timing within which actions are taken may be critical to safeguarding finds of archaeological interest and to avoiding unreasonable disturbance to the dredging operation.

#### MONITORING BRIEF

On every working barge a member of staff needs to be appointed as the Monitoring Officer. This person will monitor the dredged sediment and look out for unusual objects. A Guide to identifying finds and a proforma reporting form have been prepared to assist the Monitoring Officer.

Immediately that an unusual object is identified, the Monitoring Officer shall inform the Master of the ship. The ship's position shall be noted and dredging within 50m of the location avoided. The Preliminary Record Form should be completed, copied to the AMO and contact with the marine archaeologist established. The object should be stored in seawater, in a clean container which should be covered. Any rust, concretion or marine growth should not be removed.

This procedure should not cause any delay to the dredging programme as work can continue in areas away from the find.

It is important that the marine archaeologist is contacted as quickly as possible, preferably the same day as the discovery and formal archaeological advice should be sent to the AMO in no more than three working days.

The flow chart set out below shows the key stages that should be followed:

#### **KEY STAGES FOR THE MONITORING BRIEF**

The term Master is used for the person in control of the dredging vessel.

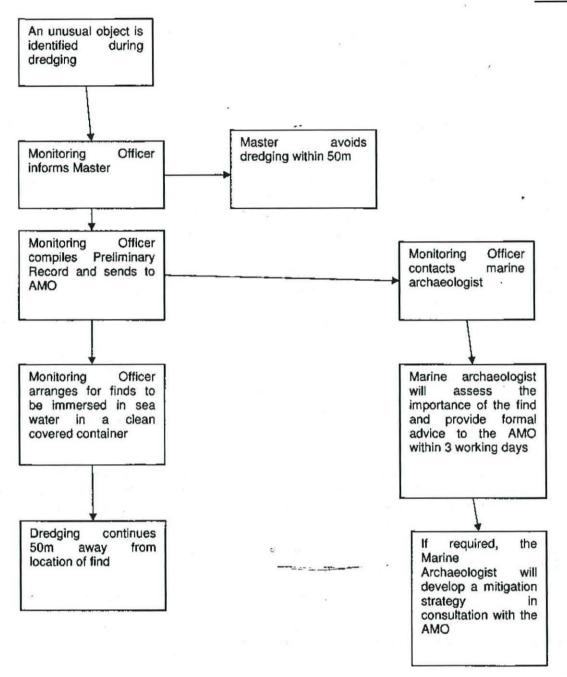
The Monitoring Officer is a member of the dredging vessel crew specifically appointed to watch the dredging spoil for unusual objects.

The Marine Archaeologist shall be appointed by the developer and be ready to respond immediately if required.

EIAO

Antiquities and Monuments Office is abbreviated to AMO.

# Annex A



#### TYPES OF FIND

'Finds' are considered here to mean all forms of artefact that can be found on or in the seabed. To be an artefact, the thing must have been made, modified, used or transported by people i.e. their presence on the seabed is not natural.

# **GUIDELINES FOR IDENTIFYING FINDS OF ARCHAEOLOGICAL INTEREST**

This Guide is provided to assist non professional archaeologists identify objects which may have archaeological potential.

## Annex A

#### Rubber, Plastic etc.

In most cases rubber, plastic and similar modern materials are not of archaeological interest and can be disregarded.

One exception is where such materials are found in the same area as aluminium objects and structures, which may indicate aircraft wreckage from World War Two. Such material should be reported.

#### Iron and Steel

The potential range and date of iron and steel objects is so wide that it is difficult to provide general guidance. In broad terms, iron and steel objects, which are covered by a thick concrete like coating ('concretion') are likely to be of archaeological interest and should be reported.

Pieces of metal sheet and structure may indicate a wreck and should be reported.

## Other Metals

Items made of thin, tinned or painted metal sheet are unlikely to be of archaeological interest.

Aluminium objects may indicate aircraft wreckage from World War Two, especially if two or more pieces of aluminium are fixed together by rivets.

Copper and copper alloy (bronze, brass) objects might indicate a wreck, or they may be very old. All occurrences should be reported.

Precious metal objects and coins are definitely of archaeological interest because they are relatively easy to date. All occurrences should be reported.

#### Bone

Large quantities of animal bone may indicate a wreck (the remains of cargo or provisions) and should be reported. Objects made out of bone such as combs, harpoon points or decorative items can be very old and are definitely of archaeological interest. All occurrences should be reported.

#### Wood

Light coloured wood or wood that floats easily is probably modern and is unlikely to be of archaeological interest.

Pieced of wood that have been shaped or jointed may be of archaeological interest, especially if fixed with wooden pegs, bolts or nails.

Any wood with branches or bark is unlikely to be of archaeological interest.

#### Stone

Large blocks of stone that have been pierced or shaped may have been used as anchors or weights for fishing nets. All occurrences should be reported.

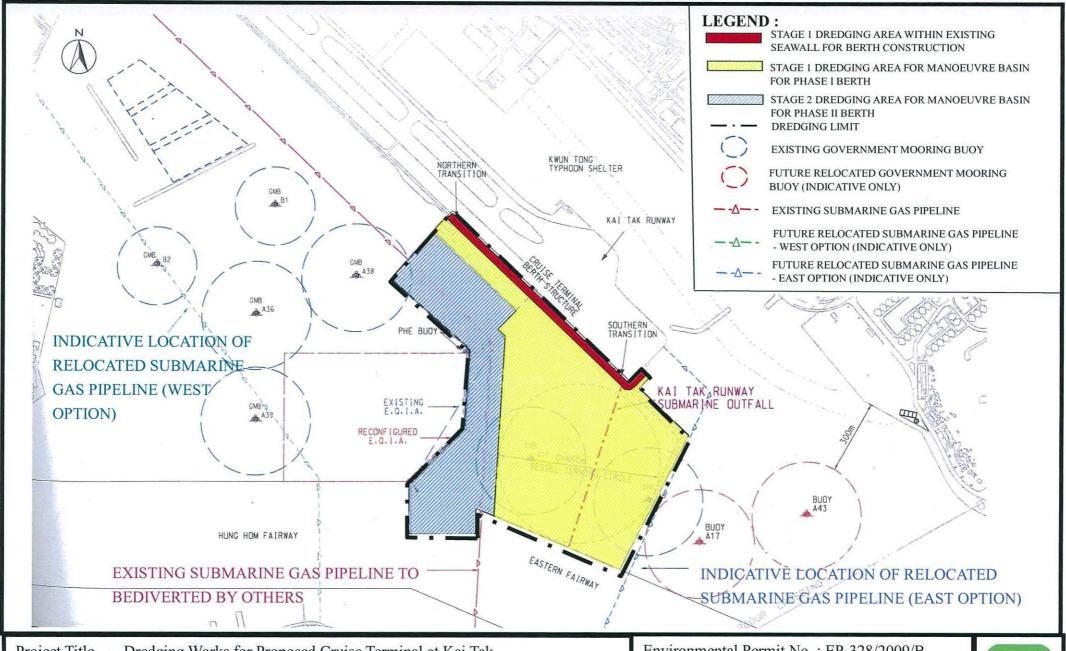
The recovery of numerous stones may indicate the ballast mound of a wreck.

#### **Pottery**

Any fragment of pottery is potentially of interest, especially if it is a large fragment. Items which look like modern domestic crockery can be discarded, but if the item has an unusual shape, glaze or fabric it should be reported.

# Annex A

DISCOVERIES ON OR IN THE SEABED: PRELIMINARY RECORD FORM					
Vessel Name					
Dredging Area					
Date					
Time of compiling information					
Name of compiler					
Name of finder (if different to above)					
Time at which anomaly encountered	7				
Vessel position at time when anomaly was encountered					
Original position of the anomaly on the seabed					
Description of the anomaly	2 Y				
Extent of the anomaly					
Were any finds recovered?					
Description of the finds					
Details of photographs , drawings or other records made of the find(s)					
Details of treatment given to find(s)					



Project Title - Dredging Works for Proposed Cruise Terminal at Kai Tak 工程名稱 - 擬議啟德郵輪碼頭的挖泥工程

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Kai Tak Runway

Silt Curtain
Grab Dredger

Seawall Silt Curtain (Hanging Type)

Grab Dredger Weight

Indicative Diagram to show the cross-section of Silt Curtain Arrangement

#### Description

Deployment of silt curtain should involve the use of impervious sheets or filter fabrics combined with flotation and anchoring devices to minimize the sediment transport away from the dredging operation. Under moving water conditions, provisions should be made in the design of the silt curtain to prevent blocking the entire water column and to allow the volume of water contained within the silt curtain to change. Dual silt curtains can be used to allow movement of dredgers and barges by alternating the position of the opening in the curtains while maintaining continuous (overlapping) containment. Indicative arrangement for the silt curtain system for this dredging project is shown in this figure. In order to maximize the effectiveness of the silt curtain, there should be proper maintenance on the integrity of the silt curtains and anchor lines.

#### **Types**

The silt curtain system used at the dredging site may comprise of the hanging type silt curtain. The hanging type silt curtain can also be used in combination with the standing type silt curtain. The hanging type silt curtain can hang from floating buoys. Anchor blocks attached by anchor rope to the silt curtain can be used to keep the silt curtain in position. The standing type silt curtain should be fixed to the bottom of seabed as far as practicable.

Project Title - Dredging Works for Proposed Cruise Terminal at Kai Tak

工程名稱 - 擬議啟德郵輪碼頭的挖泥工程

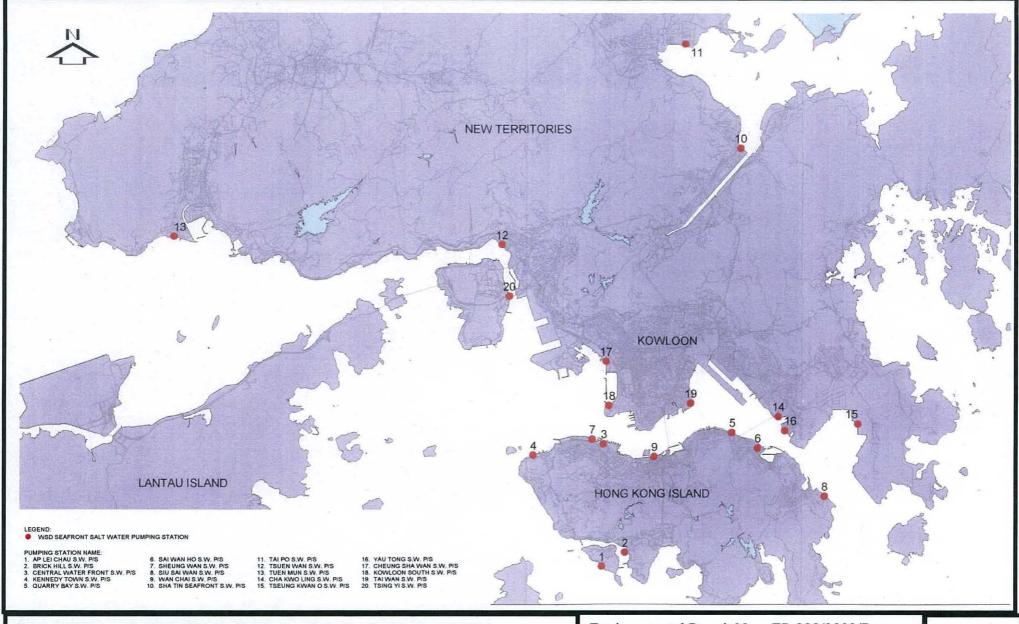
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Figure 2 - Indicative Silt Curtain Arrangement

圖二 - 隔泥幕佈置示意圖





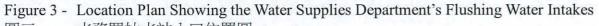


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圖三 - 水務署抽水站入口位置圖



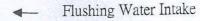


WSD Flushing Water Intake at Tai Wan

Plan view of a silt screen around the seawater intake. Silt screen may be made from synthetic geotextile fabrics, which allow water to flow through but retain a fraction of the suspended solids. Provisions should be made in the design of the silt screen to allow the volume of water contained within the silt screen to change.

# Legend:

\_ Silt Screen





# **Kowloon Bay**

Typical Silt Screen System for Seawater Intake



Project Title - Dredging Works for Proposed Cruise Terminal at Kai Tak

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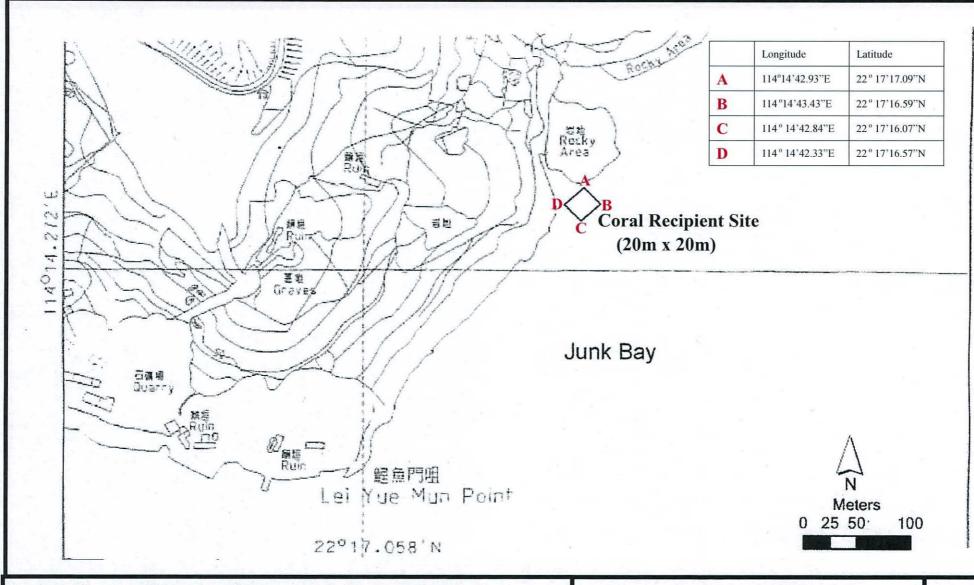
Figure 4 - Indicative Silt Screen Arrangement

圖四 - 隔泥網佈置示意圖









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Figure 5 - Coral Recipient Site in Junk Bay

圖五 - 將軍澳的珊瑚接收地點



