FORM 5

[redacted]

Application No. : VEP-546/2018
Reference No. :
(For official use)

FORM 5
ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE
(CHAPTER 499)
SECTION 13(1)

Application for Variation of an Environmental Permit

PART A PREVIOUS APPLICATIONS

☑ No previous application for variation of an environmental permit.

☐ The environmental permit was previously amended.

Application No. : .....

PART B DETAILS OF APPLICANT

B1. Name : (person or company)

Queen Mary Hospital

[Note : In accordance with section 13(1) of the Ordinance, the person holding an environmental permit or a person who assumes responsibility for the designated project may apply for variation of the environmental permit.]

B2. Business Registration No. : (if applicable) [redacted]

B3. Correspondence Address :

[redacted]

B4. Name of Contact Person : [redacted]

B5. Position of Contact Person : [redacted]

B6. Telephone No. : [redacted]

B7. Fax No. : [redacted]

B8. E-mail Address : (if any) [redacted]

PART C DETAILS OF CURRENT ENVIRONMENTAL PERMIT

C1. Name of the Current Environmental Permit Holder :

Queen Mary Hospital

C2. Application No. of the Current Environmental Permit : EP-545/2017

C3. The Current Environmental Permit was Issued in : month / year

10 2017

Important Notes : Please submit the application together with

(a) 3 copies of this completed form; and

(b) appropriate fee as stipulated in the Environmental Impact Assessment (Fees) Regulation

to the Environmental Protection Department at the following address :

The EIA Ordinance Register Office,
27th floor, Southorn Centre, 130 Hennessy Road,
Wan Chai, Hong Kong.

RECEIVED
06 SEP 2018
EIAO Register Office, E.P.D.

☐ Tick (✓) the appropriate box

PART D PROPOSED VARIATIONS TO THE CONDITIONS IN CURRENT ENVIRONMENTAL PERMIT

D1. Condition(s) in the Current Environmental Permit :	D2. Proposed Variation(s) :	D3. Reason for Variation(s) :	D4. Describe the environmental changes arising from the proposed variation(s) :	D5. Describe how the environment and the community might be affected by the proposed variation(s) :	D6. Describe how and to what extent the environmental performance requirements set out in the EIA report previously approved or project profile previously submitted for this project may be affected :	D7. Describe any additional measures proposed to eliminate, reduce or control any adverse environmental impact arising from the proposed variation(s) and to meet the requirements in the Technical Memorandum on Environmental Impact Assessment Process :
Part B (Description of Designated Project) Location, scale and scope of designated project	To include demolition works of one abandoned clinical waste incinerator in 5/F and one associated chimney from the ceiling of Incinerator Room, 5/F to the Rooftop of University Pathology Building (UPB) as shown in the attached Figures 1, 2, 3 and 4.	During the implementation of preparatory works for the Redevelopment of Queen Mary Hospital (QMH)-Phase 1, another abandoned clinical waste incinerator in the UPB was identified when the building was being vacated. As part of the preparatory works for Phase 1 Redevelopment Project of QMH, it is required to decommission and dispose of the existing clinical waste incinerator at Incinerator Room at 5/F of UPB and associated chimney. In view of the nature and objectives of the decommissioning works in UPB are same as that covered under EP-545/ 2017, it is proposed to vary the EP-545/2017 to cover the incinerator and associated chimney decommissioning works in UPB. In view of the scale and nature of the proposed variations, as well as the UPB and the	In view of the scale and nature of the proposed variations, as well as the UPB and the surrounding buildings have been vacated, no environmental changes arising from the proposed variation is expected.	Please refer to the Environmental Review Report, Section 4.	Please refer to the Environmental Review Report, Section 5.	No additional measures are required for the proposed variations.
Part C (Permit Conditions) Specific Conditions	To add the following 3 conditions for the demolition works of UPB incinerator: • **Waste Management Plan** Upon completion of the residual ash investigation and asbestos investigation, a Waste Management Plan (WMP) shall be prepared and submitted to the Environmental Protection Department (EPD) for approval. The Waste Management Plan shall include the findings of the residual ash investigation and asbestos investigation, the types of waste to be covered; possible recycling					

PART D PROPOSED VARIATIONS TO THE CONDITIONS IN CURRENT ENVIRONMENTAL PERMIT

D1. Condition(s) in the Current Environmental Permit :	D2. Proposed Variation(s) :	D3. Reason for Variation(s) :	D4. Describe the environmental changes arising from the proposed variation(s) :	D5. Describe how the environment and the community might be affected by the proposed variation(s) :	D6. Describe how and to what extent the environmental performance requirements set out in the EIA report previously approved or project profile previously submitted for this project may be affected :	D7. Describe any additional measures proposed to eliminate, reduce or control any adverse environmental impact arising from the proposed variation(s) and to meet the requirements in the Technical Memorandum on Environmental Impact Assessment Process :
	and reuse of materials; and location of the disposal site(s) for various types of wastes. • **<u>Decommissioning Works at UPB</u>** All precautionary and mitigation measures recommended in the Environmental Review Report (ERR) for the decommissioning works in UPB, and waste management approaches suggested in the approved WMP shall be fully implemented. • Site audit report should be submitted to EPD showing the site audit information for decommissioning works in UPB according to the recommendations for environmental audit in the ERR.	surrounding buildings have been vacated, no materials change arising from the proposed variations is expected.				

PART D PROPOSED VARIATIONS TO THE CONDITIONS IN CURRENT ENVIRONMENTAL PERMIT

D1. Condition(s) in the Current Environmental Permit :	D2. Proposed Variation(s) :	D3. Reason for Variation(s) :	D4. Describe the environmental changes arising from the proposed variation(s) :	D5. Describe how the environment and the community might be affected by the proposed variation(s) :	D6. Describe how and to what extent the environmental performance requirements set out in the EIA report previously approved or project profile previously submitted for this project may be affected :	D7. Describe any additional measures proposed to eliminate, reduce or control any adverse environmental impact arising from the proposed variation(s) and to meet the requirements in the Technical Memorandum on Environmental Impact Assessment Process :
Figure 1	Update Figure 1 of the EP to show the incinerator location of the UPB.					

PART E DECLARATION BY APPLICANT

E1. I hereby certify that the particulars given above are correct and true to the best of my knowledge and belief. I understand the environmental permit may be suspended, varied or cancelled if any information given above is false, misleading, wrong or incomplete.

[redacted] | [redacted] | [redacted]

Signature of Applicant | Full Name in Block Letters | Position

on behalf of Queen Mary Hospital

HOSPITAL AUTHORITY Queen Mary Hospital 瑪麗醫院 管理局

Company Name and Chop (as appropriate)

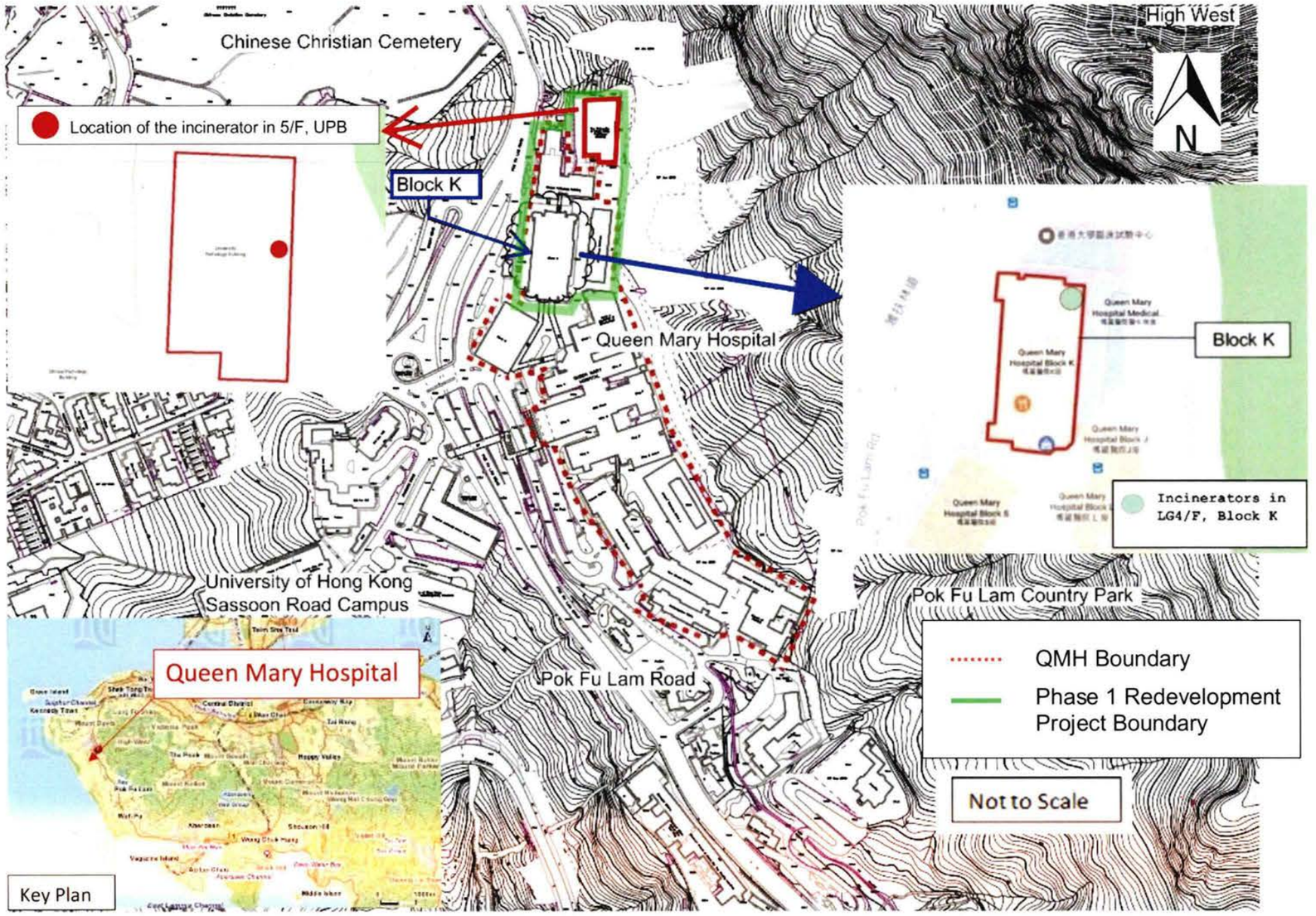
6/9/2018

Date

NOTES :

1. A person who constructs or operates a designated project in Part I of Schedule 2 of the Ordinance or decommissions a designated project listed in Part II of Schedule 2 of the Ordinance without an environmental permit or contrary to the permit conditions commits an offence under the Ordinance and is liable to a maximum fine of $5,000,000 and to a maximum imprisonment for 2 years.

2. A person for whom a designated project is constructed, operated or decommissioned and who permits the carrying out of the designated project in contravention of the Ordinance commits an offence and is liable to a maximum fine of $5,000,000 and to a maximum imprisonment for 2 years.



Site location of Block K and UPB

Figure 1

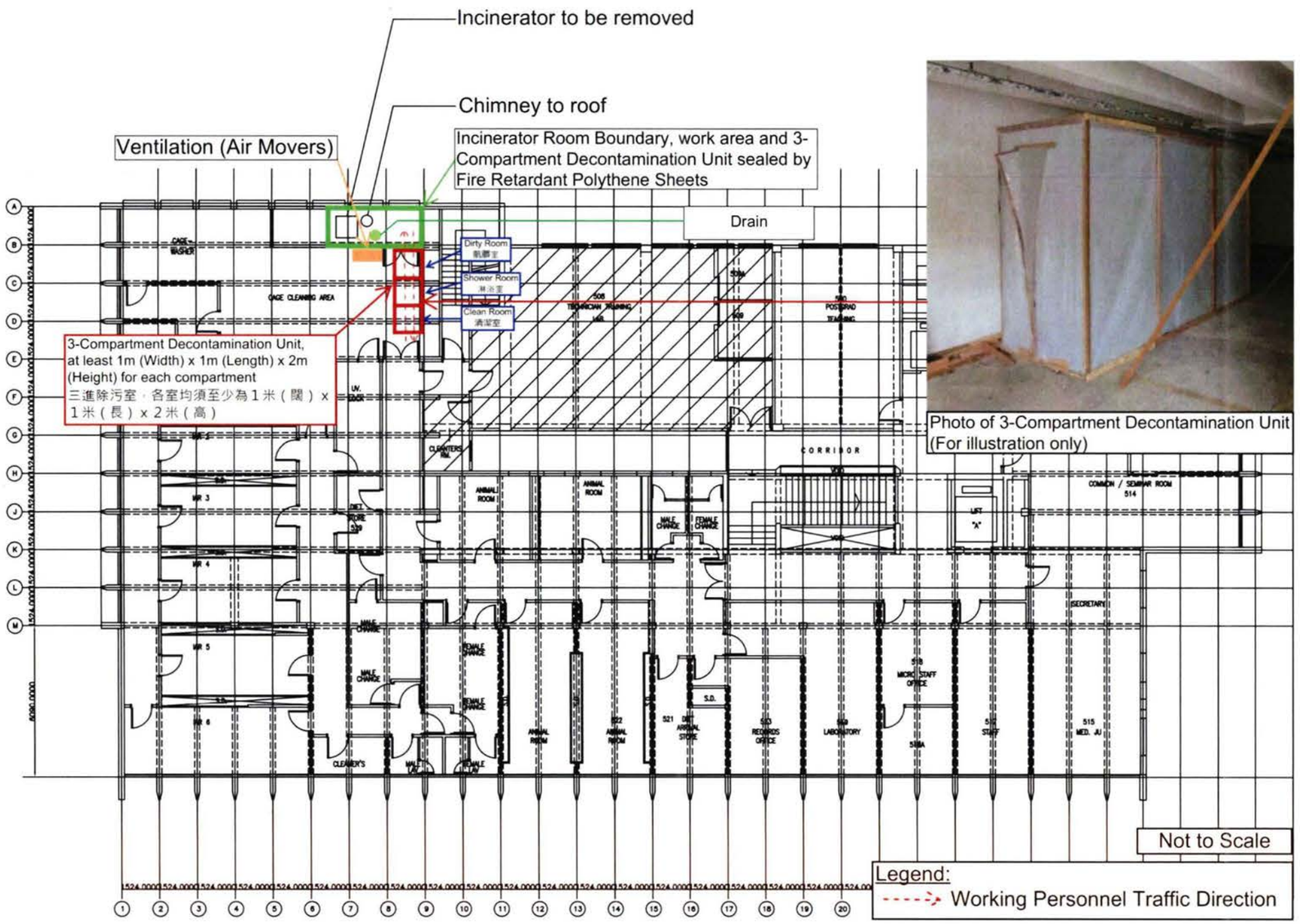
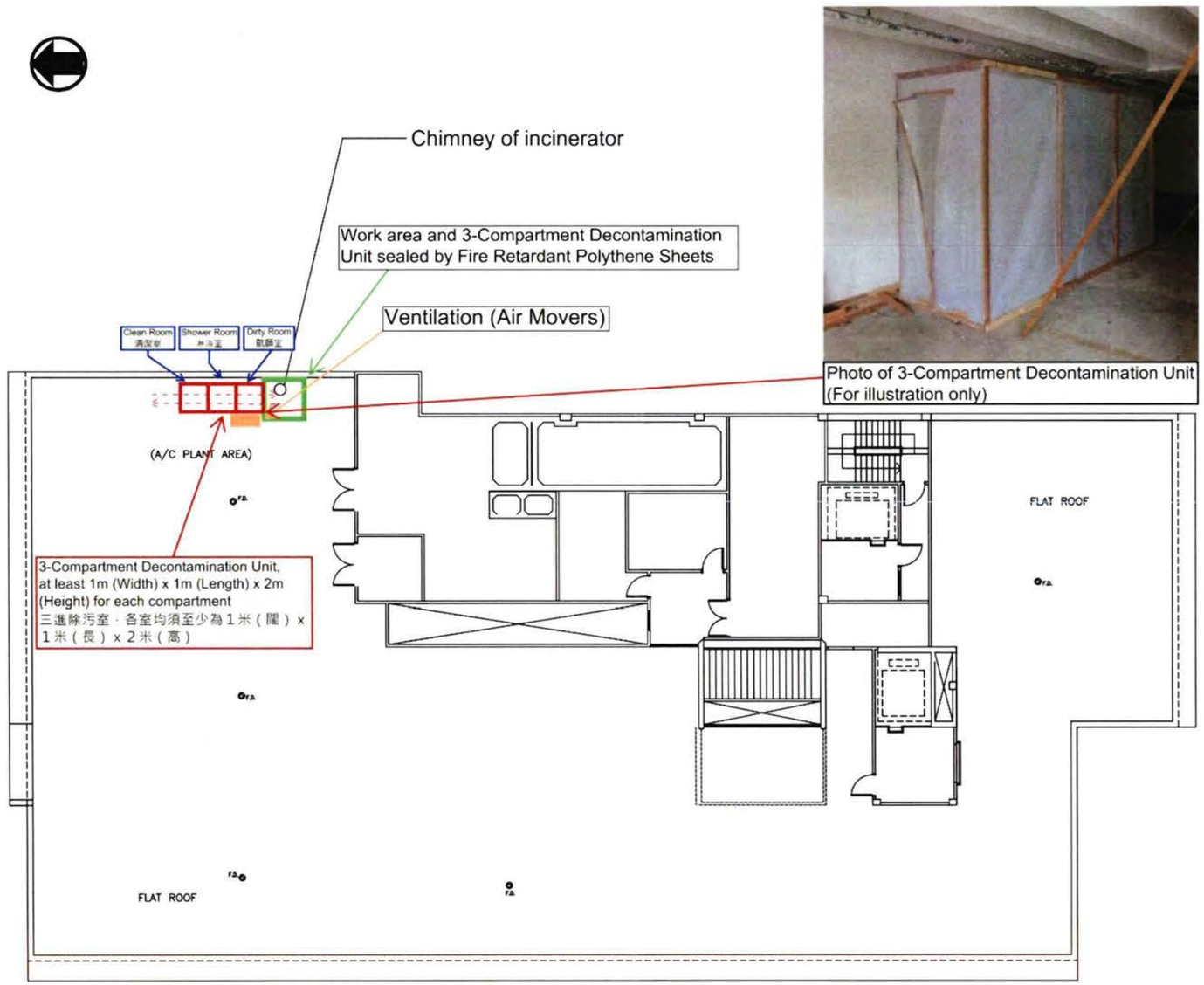


Photo of 3-Compartment Decontamination Unit (For illustration only)

Floor Plan of UPB 5/F	Figure 2	wsp



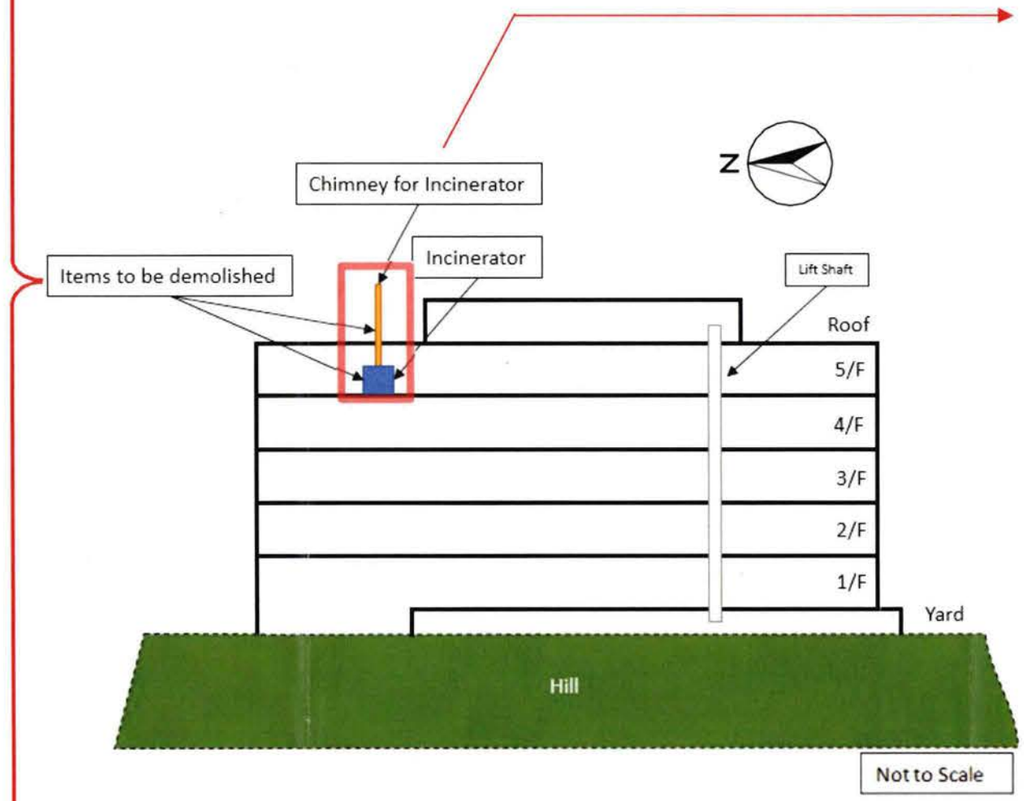
Floor Plan of UPB Rooftop	Figure 3	wsp

Incinerator unit size
(1.28m^3)

furnace capacity
(0.375m^3)

Wall-mounted Control Panel

Chimney to the ceiling of Incinerator Room



Chimney at Rooftop of UPB (7m)

Elevation Plan of UPB Showing the Location of Incinerator and The Chimney

Figure 4

DECOMMISSIONING AND DISPOSAL OF CLINICAL WASTE INCINERATORS AT BLOCK K, QUEEN MARY HOSPITAL

ENVIRONMENTAL REVIEW REPORT

SEPTEMBER 06, 2018

wsp

wsp

DECOMMISSIONING AND DISPOSAL OF CLINICAL WASTE INCINERATORS AT BLOCK K, QUEEN MARY HOSPITAL

Environmental Review Report

QUEEN MARY HOSPITAL

CONFIDENTIAL

DATE: 6 SEPTEMBER 2018

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QUALITY MANAGEMENT

ISSUE/REVISION	FIRST ISSUE	REVISION 1	REVISION 2	REVISION 3
Remarks				
Date	6 September 2018			
Prepared by	Irene Yeung			
Signature				
Checked by	Alex Cheung			
Signature				
Authorised by	James Xiong			
Signature				
Project number	2535469A			
File reference	2535469A - HKU UPB Incinerator\ERR			

SIGNATURES

PREPARED BY

Irene Yeung
Assistant Engineer

REVIEWED BY

Alex Cheung
Associate

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TABLES

FIGURES

APPENDICES

1 BASIC INFORMATION

1.1 PROJECT TITLE

1.1.1 Decommissioning and Disposal of Clinical Waste Incinerators at Block K, Queen Mary Hospital (the "Project").

1.2 PURPOSE AND NATURE OF THE PROJECT

1.2.1 Established in 1937, Queen Mary Hospital (QMH) is a major acute hospital in the Hong Kong West Cluster (HKWC) of the Hospital Authority (HA), serving a population of over 531,000 in the Central and Western and Southern Districts as well as treating many patients in other geographical districts in Hong Kong. It provides a full range of acute and tertiary services, including 24-hour Accident and Emergency (A&E) services, in-patient services, ambulatory care and rehabilitation services, as well as specialist services covering a wide range of specialties and subspecialties for the residents.

1.2.2 Being the teaching hospital of the Li Ka Shing Faculty of Medicine of The University of Hong Kong, QMH is responsible for providing professional clinical training, pioneering innovative technology, and conducting clinical trials for new treatment modalities. In addition, QMH serves as a tertiary and quaternary referral centre for many complex and advanced services such as organ transplant, neonatal intensive care, coronary care, burns and reconstructive surgery and neurosurgery, for the entire territory. Since July 2003, QMH has become the only designated liver transplant centre in Hong Kong to provide world-class standard liver transplant service. The A&E Department of QMH has been designated as one of the five trauma centres in the territory.

1.2.3 The redevelopment plan, featuring the use of QMH's northern site to fit the hospital's future service model as an academic health sciences center, involves the decanting of existing facilities of the north end of QMH complex to the ex-Senior Staff Quarters (SSQ) (which had been converted to and renamed as Block T). It presents a golden opportunity to enable the hospital to enhance its role as a premier teaching hospital, as well as further improving the hospital environment for our patients, medical students, academic partners and colleagues.

1.2.4 The Phase 1 Redevelopment Project of Queen Mary Hospital is conducted in two stages:

Stage I Preparatory Works:

- Conversion works at the vacated SSQ (renamed as Block T)
- Construction of a link bridge connecting Block T and the buildings in the hospital complex
- Road widening works within the hospital boundary

Stage II Main Works:

- Demolition of Clinical Pathology Building (CPB) and Housemen Quarters (HQ) of QMH as well as University Pathology Building of The University of Hong Kong (UPB)
- Construction of New Block
- Provision of an additional access road
- Construction of a proposed rooftop helipad

1.2.5 As part of the preparatory works for Redevelopment of QMH-Phase 1, it was proposed to decommission and dispose of the abandoned clinical waste incinerators and associated chimneys in Block K, QMH, in 2 phases. Since the proposed decommissioning works constitute a designated project under Item 3, Part 2, Schedule 2 of EIAO, an application for Environmental Permit (EP) for the works were submitted

to EPD and an EP (i.e. EP-545/2017) was subsequently issued for the proposed works. The Environmental Permit EP-545/2017 can be referred to **Appendix 1.1**.

1.2.6 During the implementation of preparatory works for the Phase 1 Redevelopment Project of QMH, another abandoned clinical waste incinerator in the UPB was identified when the building was being vacated.

1.3 PROPOSED VARIATIONS

1.3.1 University Pathology Building (UPB) is part of The University of Hong Kong and is located within the Queen Mary Hospital (QMH), 102 Pok Fu Lam Road on Hong Kong Island. One (1) abandoned waste incinerator is found in 5/F with one (1) associated chimney from the ceiling of Incinerator Room, 5/F to the Rooftop of UPB.

1.3.2 As part of the preparatory works for Phase 1 Redevelopment Project of QMH, it is required to decommission and dispose of the existing clinical waste incinerator at Incinerator Room at 5/F of UPB and associated chimney. In view of the nature and objective of the decommissioning works in UPB are same as that covered under EP-545/2017, it is proposed to vary the EP-545/2017 to cover the incinerator and associated chimney decommissioning works in UPB. Considering the proposed variations having smaller scale and same nature as the decommissioning works covered under EP-545/2017, as well as the UPB and the surrounding buildings have been vacated, no materials change arising from the proposed variations is anticipated.

1.3.3 The building demolition works and decommissioning works of other chimneys for laboratory fume cupboards do not form part of this variation and would be carried out separately in the later stage of the QMH Phase 1 Redevelopment Project.

1.3.4 The incinerators in Block K is approximately 17m^3 (1.7m (W) x 2.8m (H) x 3.5m (D)) whilst the incinerator at 5/F of UPB is approximately 1.28m^3 (0.75m (W) x 1.7m (H) x 1m (D)). There are two incinerators and two chimneys to be demolished in Block K while there are only one incinerator and one chimney to be demolished in UPB. It is also estimated that the volume of residual ash in the UPB incinerator is approximately 0.04m^3 which is approximately 8% of the Block K incinerators (i.e. 0.5m^3). The project scale of decommissioning and disposal works of the UPB incinerator is much smaller (i.e. 10%) than that of the decommissioning works of the incinerators at Block K of QMH under Environmental Permit No. EP-545/2017.

1.3.5 This Environmental Review Report has been prepared to assess the potential environmental impacts associated with the proposed decommissioning and disposal works and propose additional measures if required to meet the requirements in the Technical Memorandum on Environmental Impact Assessment Process.

1.4 NAME OF THE PROJECT PROPONENT

Queen Mary Hospital

1.5 LOCATION AND SCALE OF PROJECT

1.5.1 Queen Mary Hospital is located in 102 Pok Fu Lam Road on Hong Kong Island. **Figure 1.1** shows the location of the Queen Mary Hospital and the QMH Phase 1 Redevelopment Project boundary.

1.5.2 Queen Mary Hospital is comprised of Clinical Pathology Building, Main Block, Block J, Block K, Block L, Block S, Cancer Centre, Housemen Quarters, Nurses' Quarters Block A and B, School of Nursing, Professorial Block, New Clinical Building and Administration Block. Photographic view of UPB and its surrounding buildings from the Northwest direction is shown in **Figure 1.2**.

1.5.3 The clinical waste incinerator is located at the Incinerator Room at 5/F of the UPB. The floor area of the Incinerator Room is approximately 5.8m^2 (1.5m (D) x 3.8m (W)). The layout plan of 5/F of UPB and the layout of the Incinerator Room are presented in **Figure 1.3**. The chimney of the incinerator is located at the rooftop of UPB. The chimney is approximately 7m in height, 0.3m in diameter and is directly

connected to the incinerator at 5/F of UPB. **Figure 1.4** shows the layout of the rooftop of UPB with the incinerator's chimney. Cross section elevation plans of UPB are shown in **Figure 1.5**.

1.5.4 The incinerator at the Incinerator Room is approximately 1.28m^3 (0.75m (W) x 1.7m (H) x 1m (D)) and consists of one combustion chamber with a furnace capacity of approximately 0.375m^3. The incinerator is driven by Towngas with a maximum thermal throughput of 135kW.

1.5.5 The incinerator was installed in 1989 and manufactured by Evans Universal Ltd with the model name "Mini". Some of the information such as weight and its containing materials cannot be identified and traced from University's existing records. The usage record of the incinerator was unavailable and according to ex-post holder, the incinerator had been in operation until early 1990's. The incinerator has been shut down more than 20 years. The Towngas supply has been disconnected. No recorded accidents or incidents occurred during the operation of the clinical waste incinerator.

1.6 NAME AND TELEPHONE NUMBER OF CONTACT PERSON

1.6.1 WSP (Asia) Ltd (WSP) has been commissioned as the Consultant for the Project.

1.6.2 The contact details for the relevant personnel at WSP are shown below:

Dr. Alex Cheung

[redacted]

2 PROJECT PLANNING AND IMPLEMENTATION

2.1 PROJECT SCOPE

2.1.1 One clinical waste incinerator at Incinerator Room, 5/F of UPB, and one associated chimney from the ceiling of Incinerator Room, 5/F to the Rooftop of UPB will be decommissioned and demolished. The opening of the demolished chimney at the rooftop will be sealed up to minimise the entry of rainwater. All works will be carried out inside the Incineration Room and the rooftop under full containment to avoid the release of any residual ash to the environment.

2.1.2 Photo of the chimney can be referred to **Figure 2.1**, chimneys of laboratory fume cupboard are at the back of the incinerator's chimney. The items to be disposed of are summarised in **Table 2.1** and shown in **Figure 2.2**. Description of the demolition works is presented in **Section 5**.

Table 2.1 Items to be Disposed of

Item No.	Description
1.1	Incinerator units
1.2	Wall-mounted control panel for incinerator
1.3	Inner and outer steel shell of chimney
1.4	Insulation materials of the chimney

2.2 PROJECT IMPLEMENTATION

2.2.1 The decommissioning and disposal works will be carried out by a Specialist Contractor appointed by the project proponent or its representative.

2.2.2 The gas supply of the incinerator has been disconnected and sealed.

2.3 PROJECT TIMETABLE AND PROGRAMME

2.3.1 The project is targeted to commence in September 2018 and complete in October 2018. The actual work period is expected not to exceed 14 days. A tentative project programme is shown in **Table 2.2**.

Table 2.2 Tentative Programme for the Decommissioning and Disposal of the Incinerator

Task	Time Required
Site Preparation and Containment Construction	
Preliminary site decontamination	0.5 day
Construction of containment	5 days
Smoke test	0.5 day

Task	Time Required
Removal	
Removal and decommissioning of clinical waste incinerator, wall-mounted control panel, associated chimney and associated insulation materials	5 days
Disposal of Waste	Within 1 day from obtaining waste disposal permit

3 MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

3.1 SENSITIVE RECEIVERS

3.1.1 Sensitive receivers, as identified by the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM), include residential developments; educational institutions; healthcare facilities; place of worship; agricultural areas; watercourses; beaches; groundwater resources; marine water resources; industries sensitive to pollution; airsheds with limited capacity to disperse pollution; areas of conservation value; place of high visual value; and sites of cultural heritage.

3.1.2 Representative Air Sensitive Receivers (ASRs) within the distance of 500m from the site boundary and representative Noise Sensitive Receivers (NSRs) within the distance of 300m from the site boundary have been identified and summarised in **Tables 3.1** and **3.2,** respectively. NSRs which have been vacated or do not rely on opened windows for ventilation are excluded. Locations of representative ASRs and representative NSRs are shown in **Figures 3.1** and **3.2** respectively.

3.1.3 CPB, Block K and Housemen Quarters are within the distance of 100m from the site boundary. The UPB, CPB and Housemen Quarters have been vacated and are not sensitive receivers. Ventilation of Block K relies on central air-conditioning and does not rely on opened windows. Hence, the potential impacts to surrounding buildings are considered minimal.

Table 3.1 Locations of Representative Air Sensitive Receivers

No.	Name	Type of Use	Distance from the Project (m)
	University Pathology Building (UPB) (vacated)	Educational	---
1	Clinical Pathology Building (CPB) (vacated)	Clinical	50
2	Queen Mary Hospital Block K	Clinical	76
3	Housemen Quarters (QH) (vacated)	Residential	91
4	Queen Mary Hospital Block S	Clinical	175
5	Sassoon Road Rest Garden 1	Recreation	205
6	Queen Mary Hospital Main Block	Clinical	214
7	Sassoon Road Rest Garden 2	Recreation	236
8	Cancer Center	Clinical	279
9	Wei Lun Hall	Residential	289
10	Nurses' Quarters Block A	Residential	295
11	Sandy Bay Upper Village	Residential and Cultivation	297

No.	Name	Type of Use	Distance from the Project (m)
12	Lady Ho Tung Hall	Residential	311
13	Professorial Block	Educational	316
14	R.C. Lee Hall	Residential	336
15	Lee Hysan Hall	Residential	338
16	Glamour Court	Residential	346
17	New Clinical Building	Educational	349
18	Kai Ming Temple	Worshipping	355
19	Nurses' Quarters Block B	Residential	373
20	Pok Fu Lam Country Park	Recreation	376
21	The University of Hong Kong Jockey Club Building for Interdisciplinary Research	Educational	377
22	School of Nursing	Educational	389
23	Royalton II	Residential	391
24	CNT Bisney	Residential	391
25	Bisney Gardens	Residential	400
26	Dexter H.C. Man Building	Residential	401
27	Sunlight Court	Residential	408
28	Mount Davis Garden	Residential	411
29	Institute of Molecular Biology	Educational	412
30	Tai Hau Wan Village Sitting- Out Area	Recreation	430
31	No. 7 Mount Davis Road	Residential	430
32	Royalton	Residential	431
33	Consort Villas	Residential	440
34	Partrick Manson Building	Residential	442
35	Bisney Cove	Residential	445
36	Mognolia Garden	Residential	450
37	Consort Garden	Residential	452
38	Bisney Villas	Residential	462
39	Estate Building	Office	464
40	Greenary Garden	Residential	466
41	Greenvale	Residential	471
42	Pauline Chan Building	Educational	476

No.	Name	Type of Use	Distance from the Project (m)
43	Honourgarten	Residential	476
44	May Court	Residential	481
45	King's Court	Residential	481
46	Y.Y. Mansions	Residential	485
47	Four Wings	Residential	486
48	One Lee	Residential	488
49	Tai Hau Wan Village	Residential	490
50	Radcliffe	Educational	490
51	Caritas Wu Cheng-chung Secondary School	Educational	496

Table 3.2 Locations of Representative Noise Sensitive Receivers

No.	Name	Type of Use	Distance from the Project (m)
	University Pathology Building (vacated)	Educational	---
NSR1	Wei Lun Hall	Residential	289

3.2 MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

3.2.1 Queen Mary Hospital site is situated on a hillside in Pok Fu Lam, the south western side of Hong Kong Island. Pok Fu Lam Road is located at the west of the Project Site, CPB is located at the south of the Project Building. The Project Site is surrounded by residential buildings in the west and in the south. To the north-west of the Project Site is Hong Kong Chinese Christian Churches Union Pokfulam Road Cemetery. To the east of the Project is Pokfulam Country Park.

3.2.2 All the above major elements of the surrounding environment are unlikely to affect the Project.

4 POSSIBLE IMPACTS ON THE ENVIRONMENT DUE TO THE PROPOSED VARIATIONS

4.1 INTRODUCTION

4.1.1 The nature and scale of the Project is considered to be small and the works will be limited to internal areas of the UPB which has been vacated. The surrounding buildings CPB and Housemen Quarters have been vacated as well. Hence, the potential impacts to surrounding buildings are considered minimal.

4.1.2 The same precautionary and mitigation measures, and audit requirements proposed in the Project Profile PP-555/2017 would be implemented.

4.1.3 The key environmental impacts associated with the decommissioning and disposal of the incinerator and chimney at the site are listed in **Table 4.1** and are discussed in the following sections.

Table 4.1 Potential Environmental Impacts

Source	Likely to occur (without mitigation measures)
Waste management	✓
Water quality	✓
Air quality (dust emission)	✓
Noise	x
Land contamination	x
Unsightly visual appearance	x
Gaseous emission	x
Odour	x
Night-time operations	x
Traffic generation	x
Disruption of water movement or bottom sediment	x
Ecological impact	x

4.2 WASTE MANAGEMENT

4.2.1 A list of substances or chemicals (in any form, quantity and concentration), including asbestos, dioxins, polychlorinated biphenyls (PCBs) and heavy metals (HMs), is specified under *Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation* of the *Waste Disposal Ordinance* (WDO) that would cause pollution or constitute a danger to health or risk of pollution to the environment. Potential chemical

wastes to be generated from the decommissioning and demolition of the incinerator and associated chimney include residual ash and asbestos-containing materials (if any).

4.2.2 The key environmental impacts are associated with the residual ash remaining in the incinerator unit and ash collector. Ash sampling and analysis shall be undertaken to identify the associated risks and enable environmental protection and mitigation measures to be proposed accordingly.

4.2.3 Residual ash investigation and asbestos investigation shall be undertaken before the decommissioning works. Upon completion of the investigations, a Waste Management Plan (WMP) shall be prepared and submitted to EPD for approval. The Waste Management Plan shall include the findings of the residual ash investigation and asbestos investigation, the types of waste to be covered; possible recycling and reuse of materials; and location of the disposal site(s) for various types of wastes.

Residual Ash

4.2.4 Visual inspection of the clinical waste incinerator site was conducted on 13 August 2018. Photos of the incinerator and the associated chimney are showed in **Appendix 4.1**.

4.2.5 The residue ash of the Incinerator shall be further investigated based on the *Waste Disposal (Chemical Waste) (General) Regulation* of WDO. Protective measures would be required when the incinerator is demolished.

4.2.6 As the incinerator was operated for a short time after installation, it is expected that residual ash deposited inside the incinerator unit and are minimal. The estimated total volume of contaminated residual ash to be removed for the incinerator is about $0.04m^3$. Ash sampling and analysis shall be undertaken before the decommissioning and demolition works. If the residue ash of the Incinerator belongs to Part A Chemical Waste under Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, the residual ash shall be regarded as chemical waste and disposed of at the Chemical Waste Treatment Centre (CWTC). Otherwise, the residual ash shall be regarded as chemical waste and disposed of at designated landfill under the surveillance of EPD's Admission Ticket System after Toxicity Characteristic Leaching Procedure (TCLP) confirmation. If necessary, cement solidification would be used to treat the waste. The solidified waste passing the TCLP limit would be disposed of at designated landfill under the surveillance of EPD's Admission Ticket System

Asbestos-containing Materials (if any)

4.2.7 Before the commencement of decommissioning and demolition works, an asbestos investigation shall be undertaken for the incinerator and the associated chimney by a Registered Asbestos Consultant.

4.2.8 In accordance with section 73 of the Air Pollution Control Ordinance (CAP. 311), prior to the commencement of any asbestos abatement works, the project proponent or its representative shall notify the EPD 28 days in advance of the intended works on a specified notification form.

Incinerator Unit and Others

4.2.9 As ash deposited inside the combustion chamber as well as attached to its associated walls, and chimney, the Specialist Contractor shall use a High Efficiency Particulate Air (HEPA) vacuum to clean these materials, wet wiping before wrap them in polythene. If the residue ash of the Incinerator belongs to Part A Chemical Waste under Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, these materials should be disposed of at CWTC.

4.2.10 It is estimated that $5m^3$ of this contaminated waste would be generated from the Project. With implementation of appropriate mitigation measures as described in **Section 5.1**, no adverse impact is anticipated.

4.3 WATER QUALITY IMPACT

4.3.1 The Practical Note for Professional Persons on Construction Site Drainage (PN1/94) issued by the EPD provides guidelines for the handling and disposal of construction site discharges and shall be adopted to minimise impacts on water quality.

4.3.2 Wastewater generated from the decommissioning and demolition works will be limited to general cleaning works, and water used in dust suppression whilst wastewater from the shower unit of the 3-compartment decontamination unit will be collected and discharged into the hospital sewerage system.

Any water will be wiped dry with cloths. The damp cloths shall be stored in appropriate containers such as drums and jerricans for proper disposal. The Specialist Contractor should take precautionary measures to minimise the quantity of wastewater generated.

4.3.3 In order to estimate the sewage volume will be generated, the flow rate of 0.150 (for construction activity) + 0.080 (for commercial employee) m^3 per day per construction worker in accordance with Table T-2 of EPD's Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning was adopted. At this planning stage, three (3) workers are expected to work for the Project each day and the demolition work will be completed in 14 days. A volume of 9.66m^3 would be produced from the project. As the demolition works will be undertaken inside the hospital, the workers will use the toilets provided inside the hospital. The actual volume of wastewater to be generated is expected to be lower than the estimated figure and this would have minimal effect on the existing sewerage system.

4.3.4 The floor drain in the incinerator room shall be covered with a temporary seal during the decommissioning and demolition works. The top of the chimney should be sealed with polyethylene sheets at least twenty-four (24) hours before the works commence.

4.3.5 In addition, cloths which have been used for wet wiping will not be re-used therefore the only wastewater generated by this cleaning process will be limited to that on the surfaces of the equipment; it is anticipated that this water will evaporate and no contaminated wastewater will be generated.

4.3.6 All wastewater arise (if any) from the Project should be treated in compliance with the standards for effluent discharged into foul sewers leading to Government sewage treatment plants, i.e. Table 1 of *Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters*. The treated effluent shall also comply with the conditions of the Wastewater Discharge License.

4.3.7 Following the implementation of the above control measures, no unacceptable impact on water quality is anticipated.

4.4 AIR QUALITY IMPACT

4.4.1 The Project would not involve any demolition works for structures. With the adoption of "Recommended Pollution Control Clauses for Construction Contracts" of the EPD, the air quality impacts would be minimised.

4.4.2 The UPB and the surrounding buildings, including CPB and Housemen Quarters, have been vacated. Another surrounding building Block K relies on central air-conditioning for ventilation. Hence, the potential impacts to surrounding buildings are considered minimal.

4.4.3 The decommissioning and demolition of the incinerator units and associated chimney will be carried out in a fully enclosed structure and an air-tight condition under negative pressure, and hand-held tools and small electric equipment will be used for the decommissioning works, no significant dust emissions are expected.

4.5 NOISE IMPACT

4.5.1 CPB, Block K and Housemen Quarters are within the distance of 100m from the site boundary. The UPB and the surrounding buildings, including CPB and Housemen Quarters, have been vacated and are not sensitive receivers. Block K relies on central air-conditioning for ventilation. The demolition of incinerator, and associated chimney will be taken inside a fully enclosed structure, using hand tools and small powered tools. With the adoption of "Recommended Pollution Control Clauses for Construction Contracts" of the EPD, the construction noise impacts would be minimised. It is unlikely that the demolition activities would affect the nearby NSRs.

4.5.2 All demolition works will only be carried out between 07:00 and 19:00 on any day not being a general holiday including Sunday. "Recommended Pollution Control Clause for Construction Contracts" of the EPD will be adopted in the decommissioning and demolishing contract. If powered mechanical equipment is to be used between 19:00 and 07:00 and any time on a general holiday including Sundays, a construction noise permit (CNP) shall be obtained from the EPD.

4.6 LAND CONTAMINATION

4.6.1 There is 1 nos. of incinerator unit in the Incinerator Room of approximately 1.28m^3 (0.75m (W) x 1.7m (H) x 1m (D)) with combustion chamber located at 5/F of the building. The incinerator was constructed with a durable steel fabrication structure with a high temperature resistance lining and insulating refractory ceramic bricks on solid concrete base which built on top of a concrete slab in the incinerator room. The incinerator is fuelled by Towngas. During the site visit, the incinerator, the concrete base and slab are observed to be in good condition.

4.6.2 The incinerator has been shut down more than 20 years. It was installed since 1989 and had been operated until early 1990's.

4.6.3 Given the above conditions, it is unlikely to have potential land contamination arising from the past operation of the incinerator.

4.7 UNSIGHTLY VISUAL APPEARANCE

4.7.1 The decommissioning and demolition of the incinerator will be undertaken inside the UPB entirely. Minimal visual impact is anticipated.

4.8 RISK OF ACCIDENTS WHICH RESULTS IN POLLUTION OR HAZARD

4.8.1 As with any project, there are risks involved with the Project which if not managed could result in a pollution event or hazard.

4.8.2 The key potential accidents and hazards and control measures are identified in **Table 4.2.**

Table 4.2 Potential Risks and Control Measures

Risk	Control Measure
Release of dust (ash) into the environment – potential impacts to human health	The decommissioning and demolition work will be carried out in full containment, a Specialist Contractor will be employed with adequate health and safety protection measures in place.
Release of chemical waste during transport – potential impacts to human health and/or the environment	A suitably licensed waste collector will be used to collect, transport and dispose the chemical wastes to the designated treatment facility under the Trip Ticket System.

4.9 OTHER ENVIRONMENTAL IMPACTS NOT LIKELY TO OCCUR

4.9.1 This section details the other environmental impacts which are not likely to occur in undertaken the Project.

Gaseous Emission

4.9.2 No process will be undertaken in the decommissioning and demolition works which will generate gaseous emissions.

Odour

4.9.3 No odours are expected as the majority of waste materials which will be generated by the Project are of solid residues and no odour generating process will be undertaken in the decommissioning and demolition works.

Night-time Operations

4.9.4 Decommissioning and demolition works will be undertaken between the hours of 07:00 and 19:00; hence, there will be no night-time operations associated with the Project. However, if night-time operation is necessary, a CNP should be obtained from the EPD in advance.

Traffic Generation

4.9.5 Only limited quantity of demolition waste associated with the decommissioning and demolition works, traffic-associated environmental impact is not anticipated to be significant.

Disruption of Water Movement or Bottom Sediment

4.9.6 No discharge to surface water, dredging or reclamation will be undertaken during the Project, therefore, no disruption of water movement or bottom sediment is anticipated.

Ecological Impact

4.9.7 The Project Site and surrounding area are developed areas. There are no nearby areas of ecological or conservation value. The Project will not have any ecological impact.

5 ENVIRONMENTAL PROTECTION MEASURES MAY BE AFFECTED BY PROPOSED VARIATIONS

5.1 GENERAL

5.1.1 The same precautionary and mitigation measures, and audit requirements proposed in the Project Profile PP-555/2017 would be implemented.

5.1.2 The environmental performance requirements set out in the Environmental Permit No. EP-545/2017 would not be affected with the originally proposed mitigation measures in place as below.

5.2 WASTE MANAGEMENT

5.2.1 Decommissioning of the incinerator and chimney shall be conducted under full containment to avoid the release of any residual ash to the environment, which could be generated during the decommissioning works. The following sections detail the approach.

5.2.2 A Waste Management Plan (WMP) shall be prepared and submitted to EPD for approval. The Waste Management Plan shall include the findings of the residual ash investigation and asbestos investigation, the types of waste to be covered; possible recycling and reuse of materials; and location of the disposal site(s) for various types of wastes. The following sections detail the approach.

Site Preparation and Containment Construction

5.2.3 Preliminary site decontamination of all debris shall be carried out using High Efficiency Particulate Air (HEPA) vacuum cleaner. Except the incineration units, all other existing items shall be removed from the Incinerator Room as far as practicable to avoid obstructing work activities.

5.2.4 All openings shall be sealed with three-layers of fire retardant polythene sheets.

5.2.5 Two temporary structures shall be built from the Incinerator Room to enclose the incinerator units and at the rooftop to enclose the associated chimney.

5.2.6 Two three-compartment decontamination unit shall be constructed for entry and exit in to the works areas at 5/F and Rooftop. The unit shall comprise a dirty room, a shower room and a clean room or at least 2m high with 1m x 1m base each with three-layers of fire retardant polythene sheet where all working personnel shall carry out decontamination procedures at the 3-compartment decontamination unit before leaving the works area. Site Supervisor should sign off decontamination record of each worker. The record should be kept on site for inspection by the Project Consultant upon request. **Figure 5.1** and **Figure 5.2** illustrate the layout of the three-compartment decontamination unit.

5.2.7 Sufficient air movers shall be provided at the works area to exhaust air from the works area. Stand-by air movers shall also be installed. Sufficient air movers shall be maintained to give a minimum of six (6) air changes per hour (ACH) to the works area and, maintain a negative pressure of 1.5 to 4 mm of water within the works area throughout the entire course of the decommissioning works. A pressure monitor shall print out records and audible alarm shall be installed at an easily accessible location to demonstrate that negative pressure is maintained. New pre-filters and HEPA filters shall be used on the air movers.

5.2.8 A copy of the maintenance records of the air movers shall be kept on site for inspection upon request. The appointed Specialist Contractor shall also check the differential pressure of the air mover to ensure that the filter is not blocked. A differential pressure of above 5 mm of water indicates that the filters will need to be changed. All items remain inside the containment shall be covered with at least three (3) layers of fire retardant polythene sheets before the decommissioning works proceed.

5.2.9 Warning signs in both Chinese and English shall be put in conspicuous locations outside the temporary decontamination unit and displayed throughout the entire course of the decommissioning and demolition works.

Smoke Test

5.2.10 Prior to commencement of the decommissioning works, a smoke test with non-toxic smoke shall be carried out to ensure the tightness of the containment and to check whether there are any stagnant pockets of air (indicated by an aggregate of smoke that cannot be effectively extracted).

5.2.11 After a successful test, the air mover shall be switched on to exhaust smoke from the containment and to give a minimum of 6 ACH, and visually check that the absolute filters screen out the smoke effectively and that the pressure gauges read normal. The normal reading of the pressure range for maintaining six (6) ACH shall be 1.5 to 4 mm of water (negative pressure). The audible alarm's integrity shall also be checked, and the trigger shall be at least 1.5 mm of water (negative pressure).

5.2.12 If the alarm is triggered, the following actions should be performed:

- Stop works, evacuate all personnel and prohibit entry;
- Report to site supervisor and relevant personnel;
- Check to ensure the monitoring results are correct and detector is not faulty
- Check the air mover is not faulty and repair/replace if faulty; and
- Check for air leakage of the containment and repair/replace if necessary.

Demolition Works

5.2.13 The residual ash inside the incinerator shall be removed by scrabbling. All inner walls of incinerator shall be cleaned using a HEPA vacuum cleaner and the wet wipes. The scrabbled material and the filtered materials from the HEPA vacuum cleaner shall be packed on site and stored in polythene-lined steel drums. If the residue ash of the Incinerator belongs to Part A Chemical Waste under Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, these materials should be disposed of at the designated treatment facility. The collection, transportation and disposal of chemical waste should be carried out by licensed waste collector monitored by the Trip Ticket System. Otherwise, these materials should be disposed of at designated landfill under the surveillance of EPD's Admission Ticket System after TCLP confirmation.

5.2.14 The chimney shall be dismantled to manageable size from the top down starting from the rooftop area. Inner and outer steel shells shall be separated from insulation materials in the detached sections of the chimney before disposed of.

5.2.15 The detached sections of the incinerator and associated chimney shall be wet wiped before wrap them with three layers of fire retardant polythene with a third layer secured with duct tape, and segregated from the chemical waste.

5.2.16 The insulation-lined combustion furnace shall be dismantled to manageable size and wet wiped before wrap them with three layers of fire retardant polythene with a third layer secured with duct tape.

5.2.17 All outer layers of polythene sheets shall be decontaminated by wet wipes before leaving the work area.

5.2.18 All workers shall wear full PPE which should include disposable protective overall (such as Tyvek) with hood, nitrile gloves, shoe covers, and full-face positive pressure respirators equipped with a combination cartridge that filters particulate and removes organic vapour.

5.2.19 Following the completion of the demolition work, all surfaces in the incinerator room shall be decontaminated by HEPA vacuuming and wet wiping. Then the innermost polythene sheet shall be sprayed with Polyvinyl Alcohol (PVA) and upon drying, the inner polythene sheet shall be peeled off. The PVA decontamination process shall then be repeated for the second and third layers of the polythene sheets. All polythene sheets used shall be disposed of at the designated landfill under the surveillance of EPD's Admission Ticket System after TCLP confirmation. If necessary, cement solidification would be used to treat the waste. The solidified waste passing the TCLP limit would be disposed of at designated landfill under the surveillance of EPD's Admission Ticket System.

Disposal Method

5.2.20 If the residue ash of the Incinerator belongs to Part A Chemical Waste under Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, all residual ash collected from the incinerator, used HEPA filters, scrabbled materials and the HEPA filtered materials shall be disposed of at Chemical Waste Treatment Centre. Otherwise, the mentioned materials shall be regarded as chemical waste and disposed of at designated landfill under the surveillance of EPD's Admission Ticket System after TCLP confirmation. If necessary, cement solidification would be used to treat the waste. The solidified waste passing the TCLP limit would be disposed of at designated landfill under the surveillance of EPD's Admission Ticket System. For the disposal of chemical waste produced from the Project, the Specialist Contractor is required to register with the EPD as a Chemical Waste Producer and to follow the requirements stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes shall be used. Appropriate labels shall be affixed securely on each chemical waste container indicating the chemical characteristics of the chemical waste, such as explosives, flammable, oxidising, irritant, toxic, harmful, corrosive, etc. The Specialist Contractor should engage a licensed waste collector to collect, transport and disposed of the chemical wastes in accordance with the *Waste Disposal (Chemical Waste) (General) Regulation* of WDO under the monitoring of the Trip Ticket System.

5.2.21 If any asbestos-containing material (ACM) is identified, the asbestos works would require special precautions and strict compliance with the Air Pollution Control Ordinance (APCO). The Specialist Contractor should follow the requirements stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes shall be used. Appropriate labels shall be affixed securely on each chemical waste container indicating the chemical characteristics of the chemical waste. All ACM wastes should be collected by a licensed chemical waste collector according to the *Waste Disposal (Chemical Waste) (General) Regulation* under the monitoring of the Trip Ticket System and disposed at the designated landfill.

5.2.22 Wastes generated in demolition of chimney including steel framework and outer steel shell to be recycled whilst inner steel shell, insulation materials, used PPE, waste generated from the dismantling work and cloths used for wet wiping are considered as general wastes and shall be stored in appropriate containers such as drums and jerricans for disposal of at designated landfill site. It is estimated that $5m^3$ of waste would be generated.

5.2.23 Other wastes such as the combustion chambers and outer shell panels and chimney, polythene wrapping sheets, used PPE, waste generated from the dismantling work of the containment and cloths used for wet wiping are considered as contaminated wastes and shall be stored in appropriate containers such as drums and jerricans for disposal of at designated landfill site. If contamination of residual ash is identified, as there is no evidence to confirm that all the deposited/contaminated ash inside the incinerator units, chimney, etc. can be completely removed by the vacuum cleaner/wet wiping, it seems not justified that part of the incinerator unit/ chimney can be recycled. The combustion chamber is constructed with refractory bricks which will be removed individually and the outer steel shell will be cut to smaller pieces for disposal at designated landfill. Only the wall-mounted control panel would be recycled.

5.2.24 **Table 5.1** summarises items that will be demolished and disposed for the Project and their proposed outlets.

Table 5.1 Summary of Demolished and Disposed Items for the Project and Their Proposed Outlets

Item No.	Demolished and Disposed Item	Estimated Quantity	Proposed Outlet
1.	Residual ash	0.04 m^3	CWTC / Designated Landfill
2.	Asbestos contained materials	If any	Designated Landfill
3.	Used HEPA filters, scrabbled materials and the HEPA filtered materials	$1m^3$	CWTC / Designated Landfill

Item No.	Demolished and Disposed Item	Estimated Quantity	Proposed Outlet
4.	Combustion chamber and outer shell panels and chimney[1], polythene wrapping sheets, used PPE, waste generated from the dismantling work of the containment and cloths used for wet wiping	$5m^3$	Designated Landfill[2]
5.	Wall-mounted control panel	$0.3m^3$	Recycler listed under Hong Kong Waste Reduction Website
6.	Steel framework and outer steel shell of chimney	$1.6m^3$	Recycler listed under Hong Kong Waste Reduction Website
7.	Inner steel shell and insulation materials of chimney, and waste generated from the dismantling work and cloths used for wet wiping	$5m^3$	Designated Landfill[2]

Notes:
[1] If contamination of residual ash is identified, the combustion chamber is constructed with refractory bricks which will be removed individually and the outer steel shell will be cut to smaller pieces for disposal at designated landfill.
[2] If contamination of residual ash is identified, as there is no evidence to confirm that all the deposited/contaminated ash inside the incinerator units, chimney, etc. can be completely removed by the vacuum cleaner/wet wiping, it seems not justified that part of the incinerator unit/ chimney can be recycled.

5.3 ENVIRONMENTAL MONITORING AND AUDIT

5.3.1 Environmental monitoring is considered not necessary as no adverse environmental impacts are anticipated with the implementation of recommended mitigation measures. Environmental site audit should be conducted by an Independent Environmental Checker (IEC) during decommissioning and demolition works to check, review, verify and validate the overall environmental performance of the project, including the implementation of all the environmental protection and mitigation measures, submissions relating to environmental auditing, and any other submissions required under the Environmental Permit for the project or the requirements outlined in the EIAO through report to EPD before and upon completion of the works.

5.3.2 The following audit procedures should be adopted:

- To ensure that the general aspects of environmental quality will comply with the project requirements;
- To witness the smoke test to ensure the tightness of the containment;
- To supervise the Contractor to ensure that the requirements in the Environmental Permit are fully complied with;
- To instruct the Contractor when action is required to reduce or prevent any impacts
- To effectively and efficiently deal with any complaints on environmental performance; and
- To prepare a summary of the environmental performance of the Contractor on completion of the Project.

5.4 ADDITIONAL MEASURE DUE TO THE PROPOSED VARIATIONS

5.4.1 The same precautionary and mitigation measures and audit requirements proposed in the Project Profile PP-555/2017 would be implemented.

5.4.2 With implementation of appropriate mitigation measures as described, no adverse impact is anticipated.

5.4.3 No additional measures are required for the proposed variations.

6 CONCLUSIONS

6.1.1 With reference to EIAO-TM, the potential environmental impacts of the decommissioning works of the clinical waste incinerator unit have been discussed and the appropriate mitigation measures to implement environmental control measures have been detailed.

6.1.2 The same precautionary and mitigation measures, and audit requirements proposed in the Project Profile PP-555/2017 would be implemented.

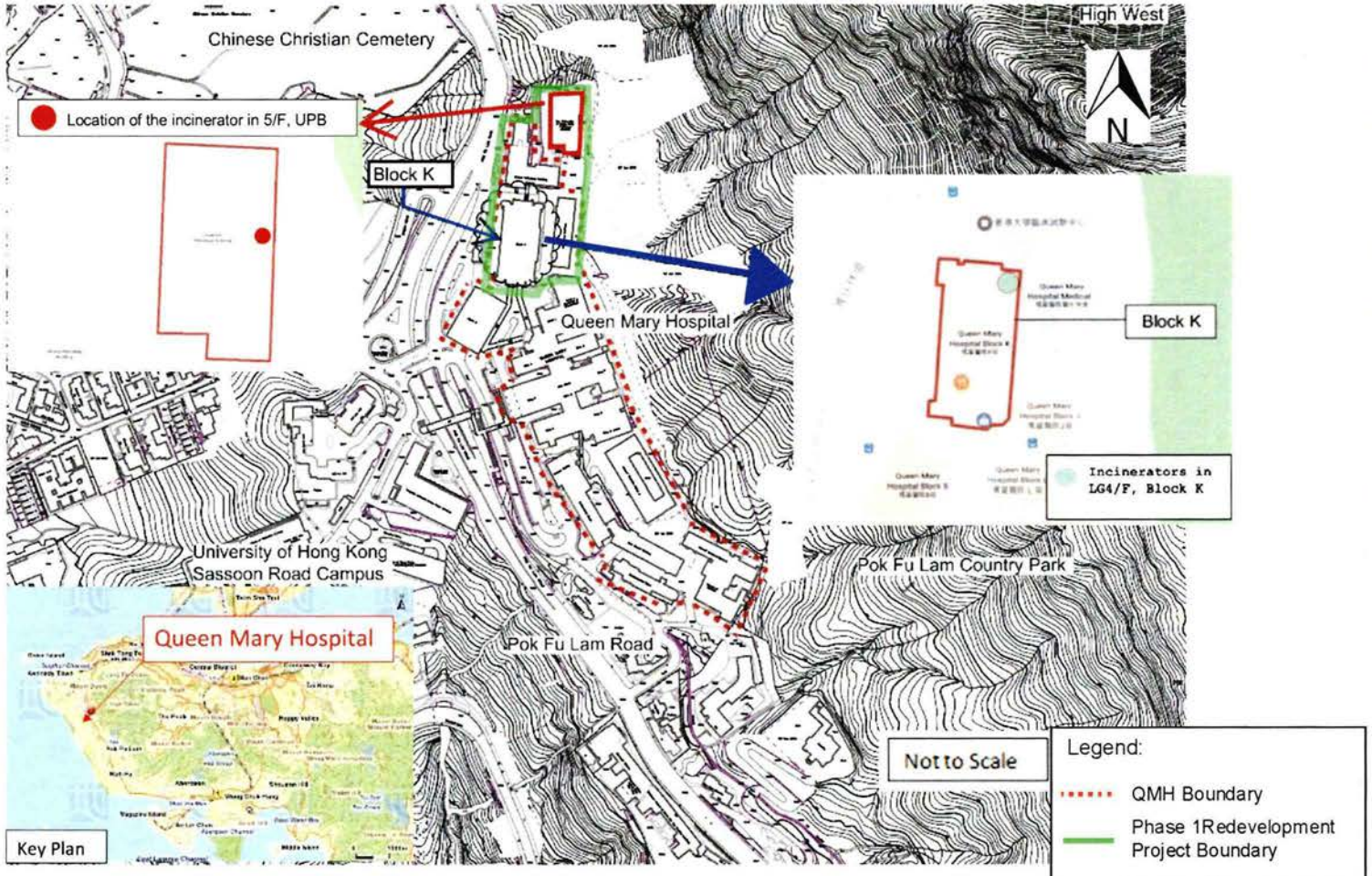
6.1.3 The key focus from an environmental perspective is to avoid release of residue ash to the environment and to avoid contamination of the on-site facilities. Given the small size of the clinical waste incinerator, decommissioning and disposal is not expected to generate any significant environmental impact to the surrounding environment. Summary of the potential environmental impacts and proposed mitigation measures is listed in **Table 6.1**

Table 6.1 Summary of the Potential Environmental Impacts and Proposed Mitigation Measures

Potential Environmental Impact	Proposed Mitigation Measures
Release of residue ash	• The decommissioning and demolition work will be carried out in full containment, a Specialist Contractor will be employed with adequate health and safety protection measures in place. • If the residue ash of the Incinerator belongs to Part A Chemical Waste under Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, a suitably licensed waste collector will be used to collect, transport and dispose the chemical wastes to the designated treatment facility under the Trip Ticket System.
Dust	• Wet wiping of the surface to minimise airborne dust. • The decommissioning and demolition work will be carried out in full containment.
Release of asbestos containing materials (if any) and chemical waste	• The decommissioning and demolition work will be carried out in full containment, a Specialist Contractor will be employed with adequate health and safety protection measures in place. • If the residue ash of the Incinerator belongs to Part A Chemical Waste under Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, a suitably licensed waste collector will be used to collect, transport and dispose the chemical wastes to the designated treatment facility under the Trip Ticket System.
Wastewater	• The floor drain in the incinerator room shall be covered with a temporary seal during the decommissioning and demolition works. • The opening of the demolished chimney at the rooftop will be sealed up to minimise the entry of rainwater.

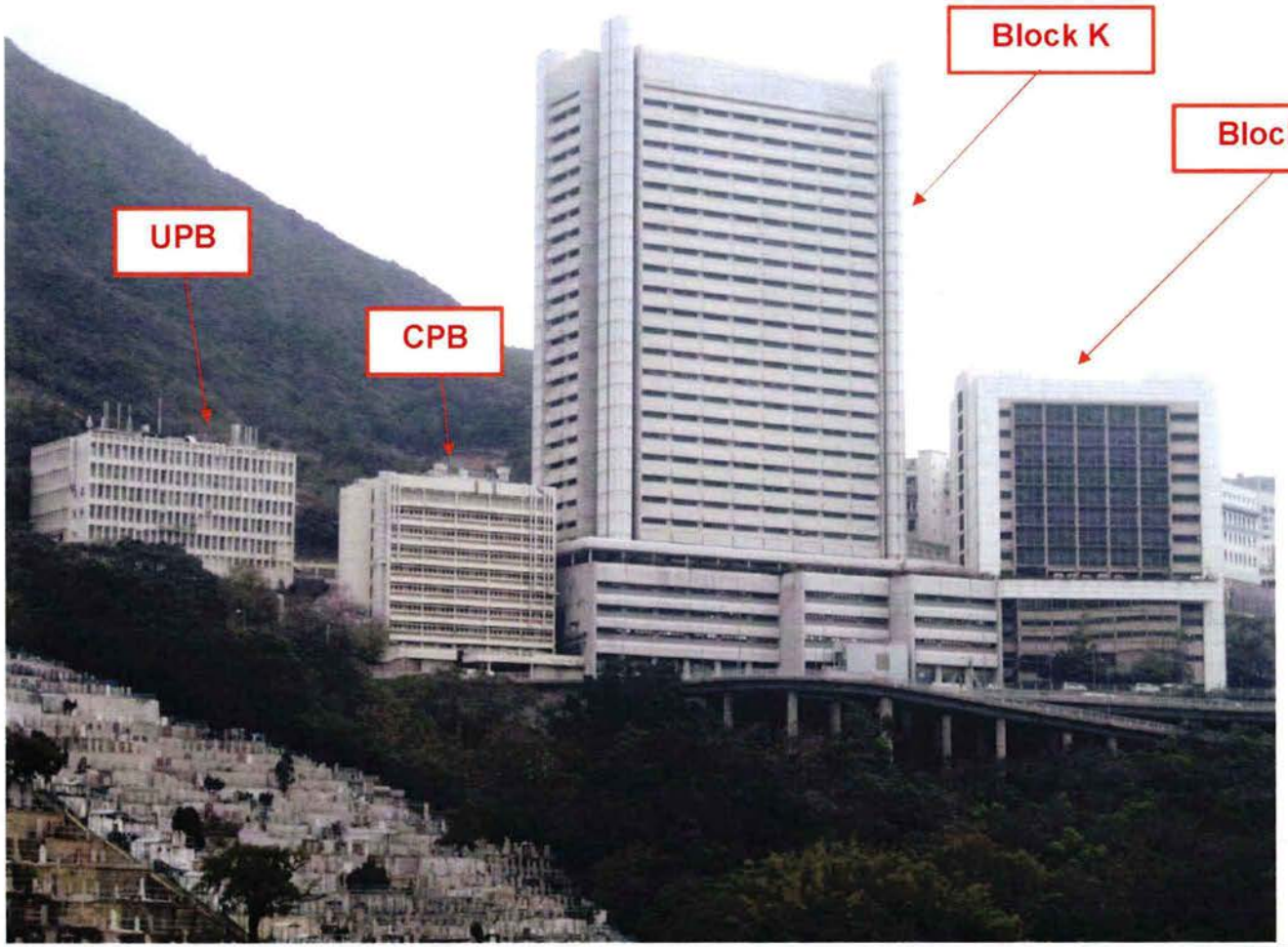
6.1.4 This Environmental Review Report has demonstrated that no additional measures are required for the proposed variations under Environmental Permit No. EP-545/2017.

FIGURES



Layout Plan of the Incinerator Room with the Study Area

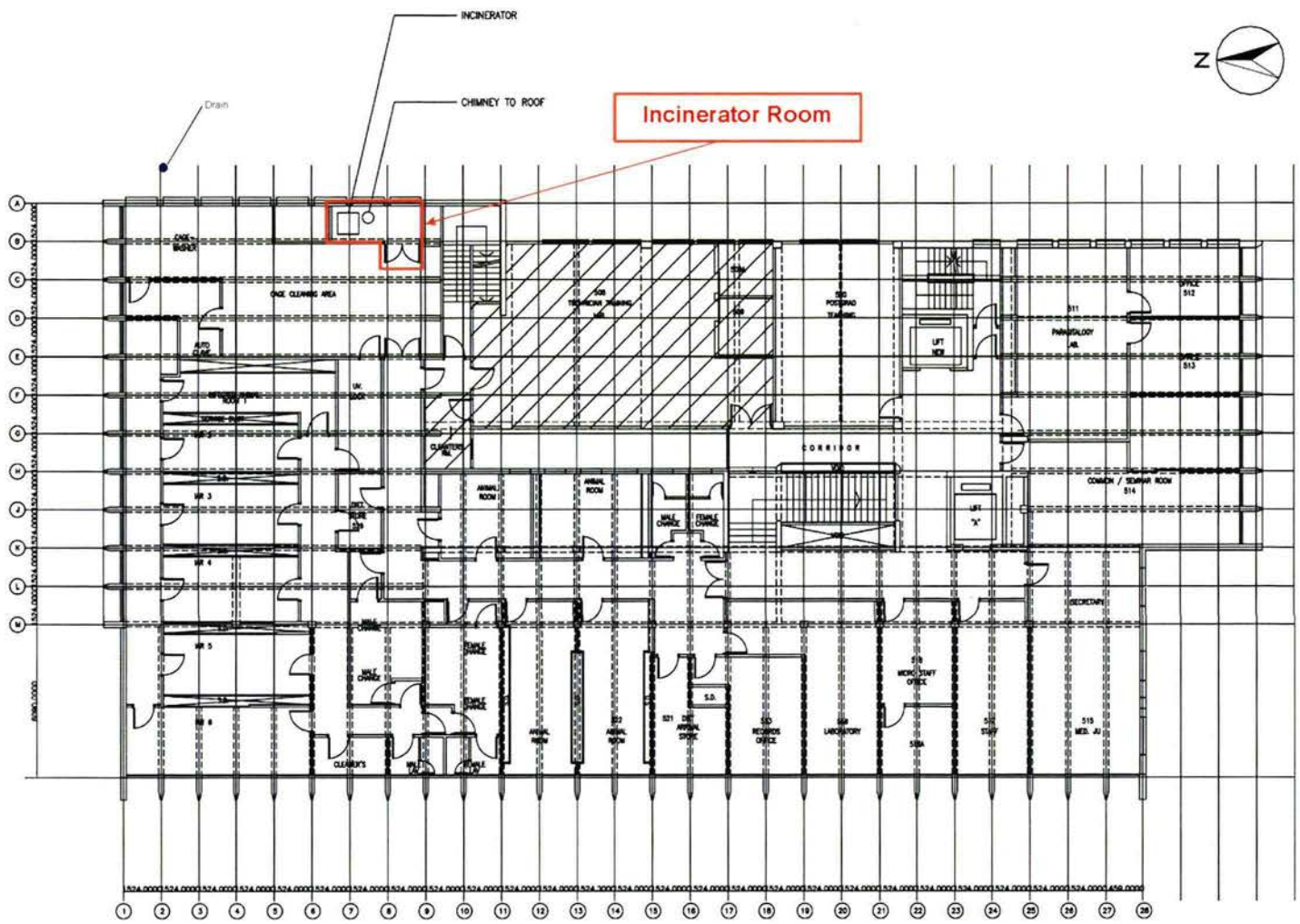
Figure 1.1



Side Elevation View of UPB and surrounding Buildings

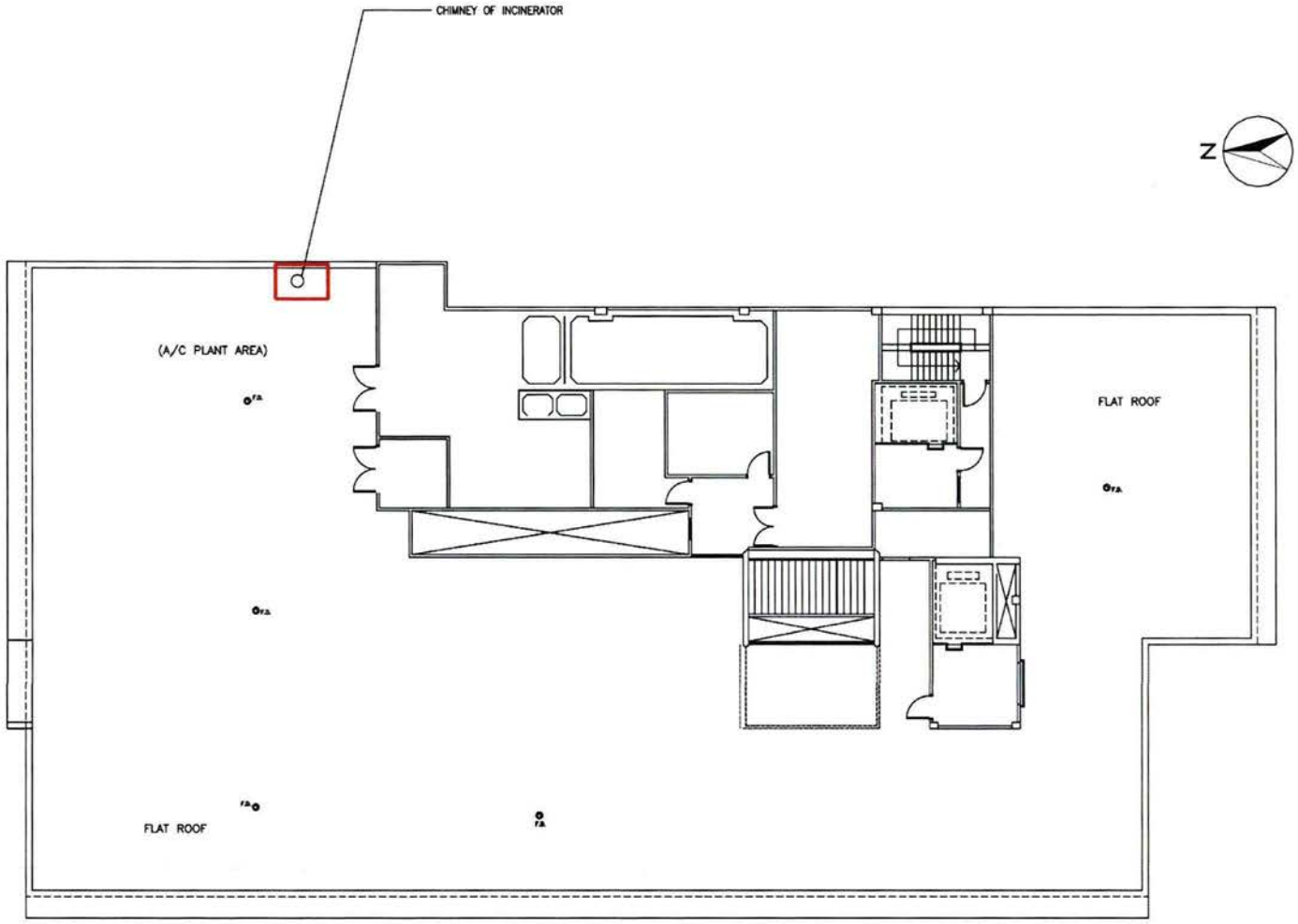
Figure 1.2

wsp



5/F Plan of UPB Showing the Location of the Incinerator Room

Figure
1.3



ROOF

Not to Scale

Rooftop Plan of UPB Showing the Location of the Chimney of Incinerator

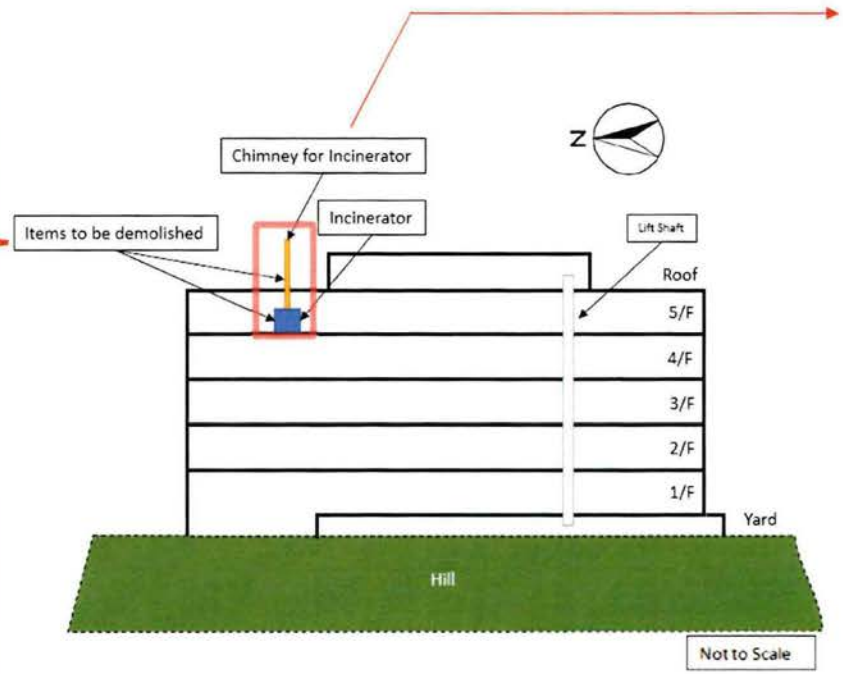
Figure
1.4

Incinerator unit size
(1.28m^3)

furnace capacity
(0.375m^3)

Wall-mounted Control Panel

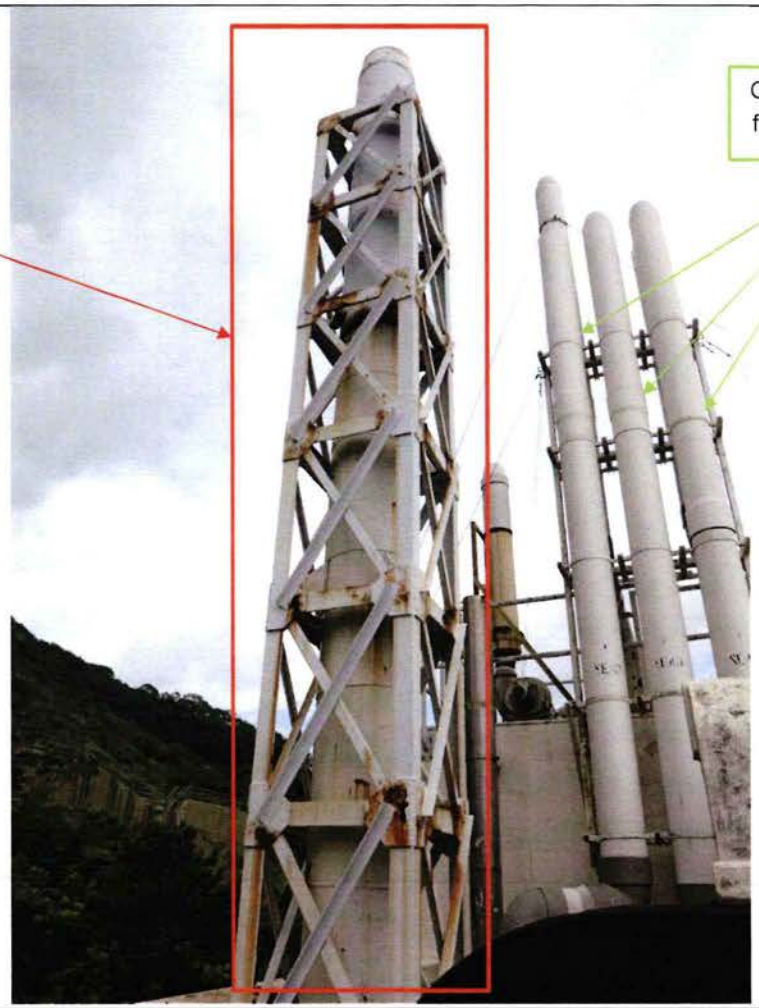
Chimney to the ceiling of Incinerator Room



Chimney at Rooftop of UPB
(7m)

Elevation Plan of UPB Showing the Location of Incinerator and The Chimney

Figure 1.5



Chimney at the Rooftop

Figure 2.1

Items (1.3) and (1.4) Chimney

Item (1.1) Incinerator

Item (1.2) Wall-mounted Control Panel

Item No.	Item to be disposed of	Disposal Location
1.1	Incinerator units	Combustion chamber and outer shell panels to Designated Landfill; Residual Ash to CWTC / Designated Landfill
1.2	Wall-mounted Control Panel	Recycler listed under Hong Kong Waste Reduction Website
1.3	Inner and outer steel shell of chimney	Recycler listed under Hong Kong Waste Reduction Website
1.4	Insulation materials	Designated Landfill

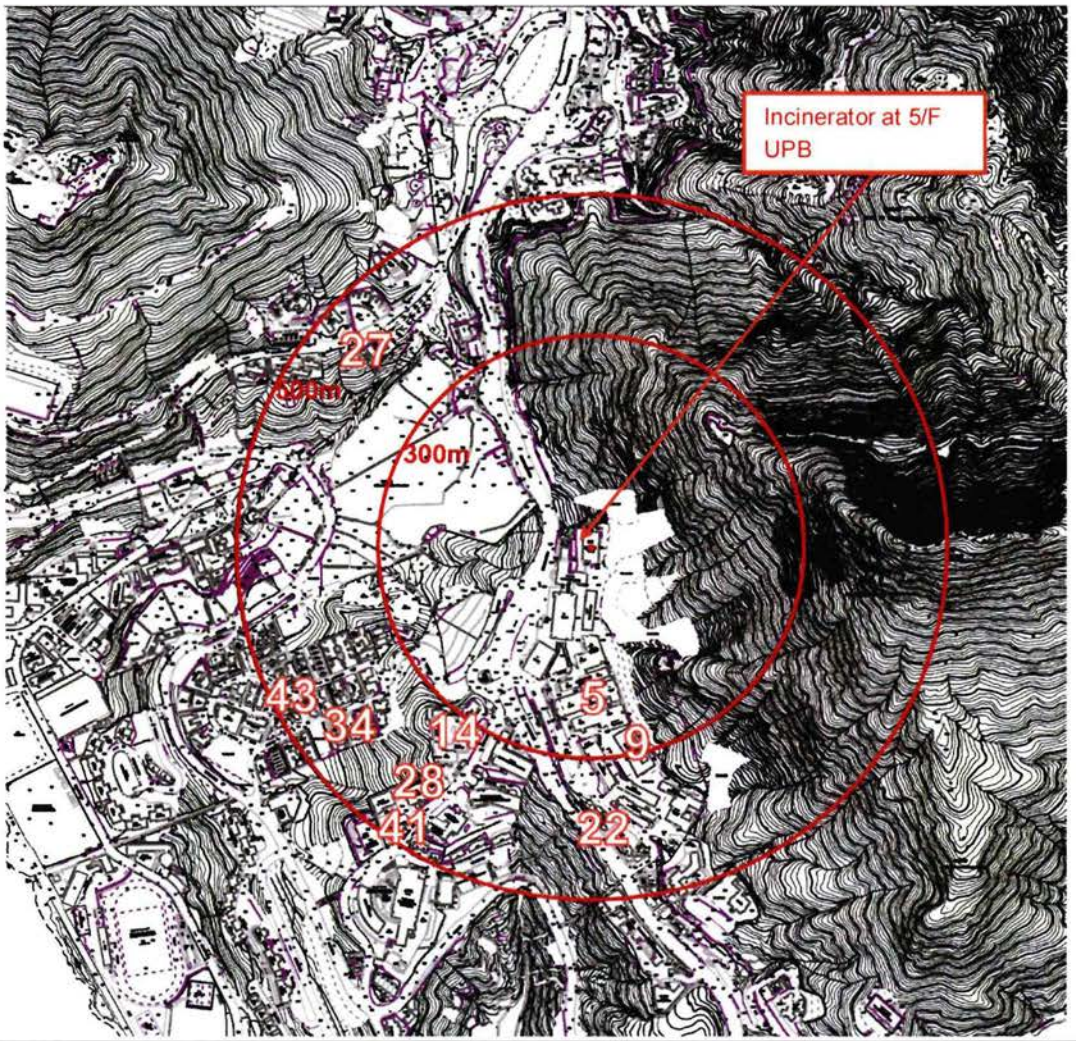
Not to Scale

Layout Plan of the Incinerator Room with the Study Area highlighted in Red with items to be disposed of

Figure 2.2

Not to Scale

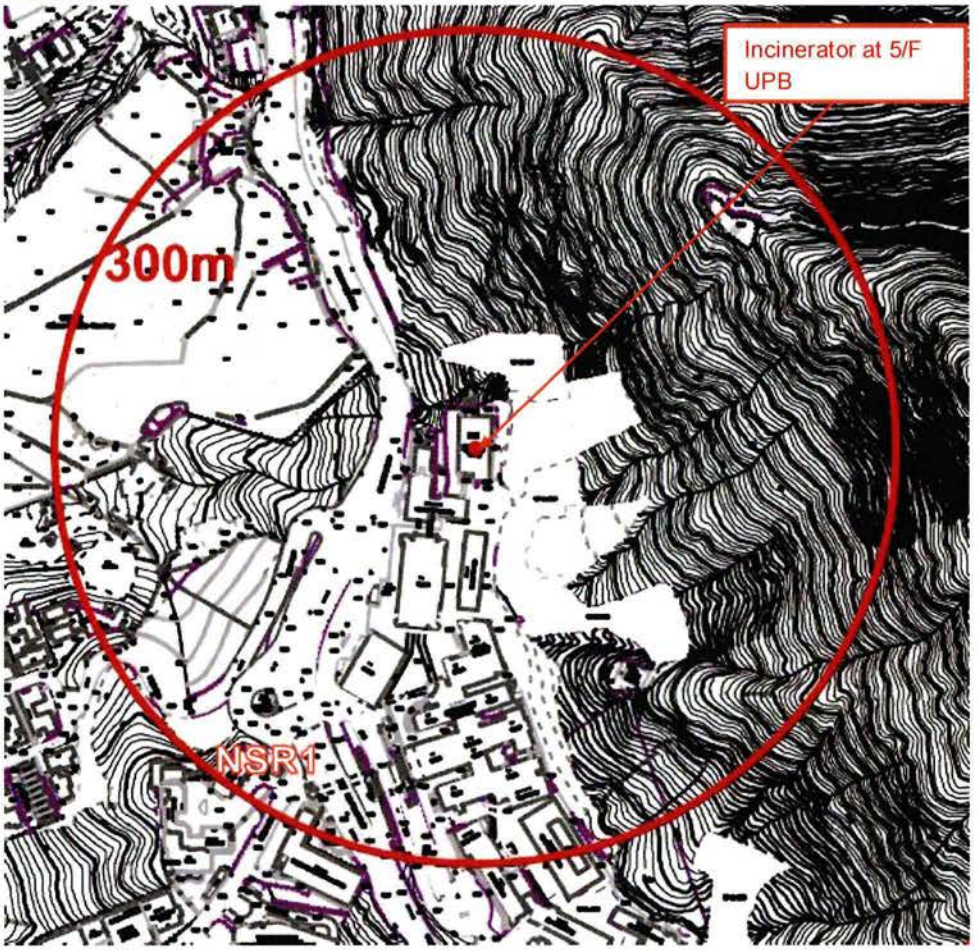
NORTH



Locations of representative Air Sensitive Receivers (ASRs)	Figure 3.1	wsp

Not to Scale

NORTH



Locations of representative Noise Sensitive Receivers (NSRs)	Figure 3.2	wsp

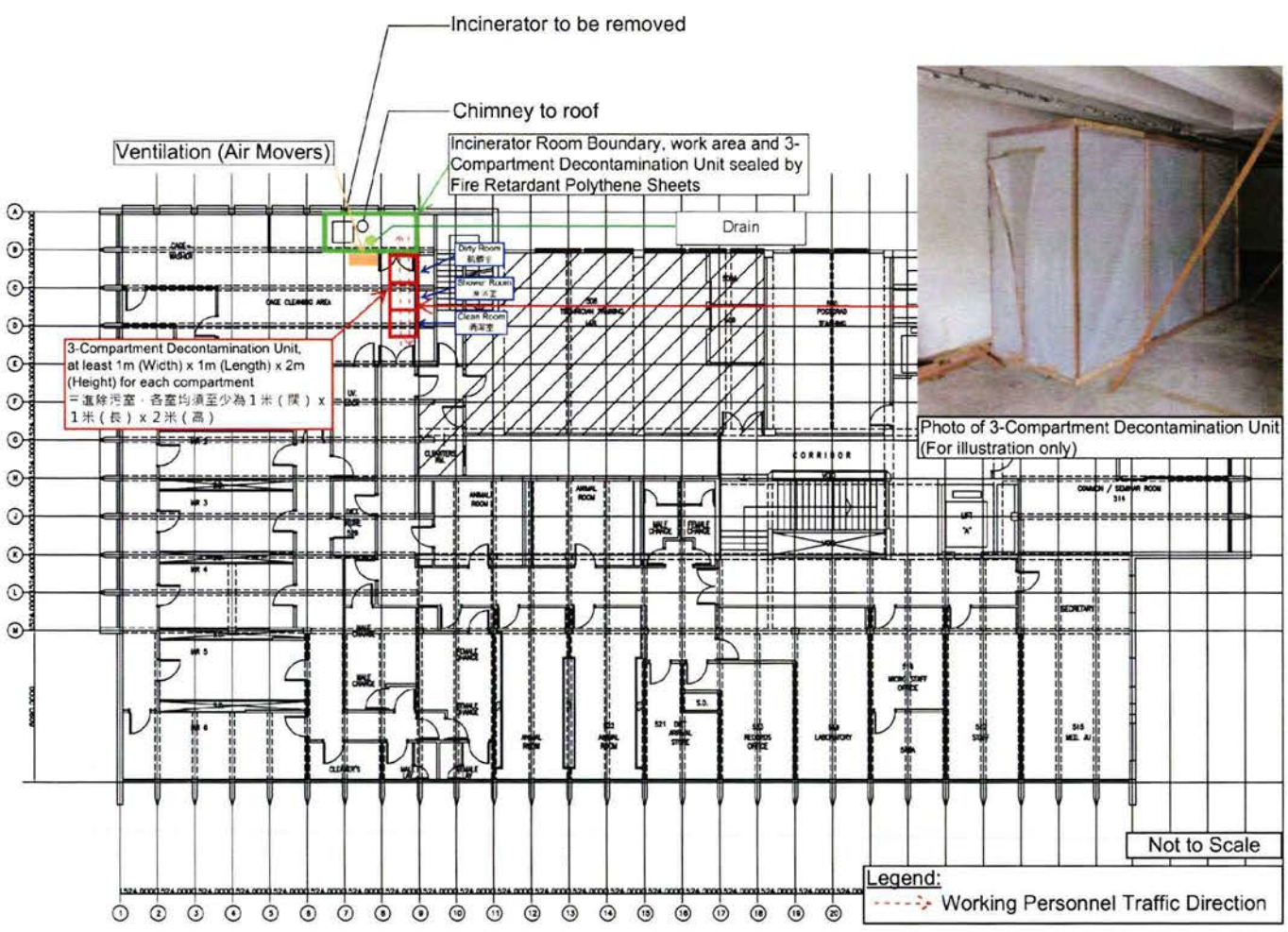


Illustration of the Works Area involved	Figure 5.1	wsp

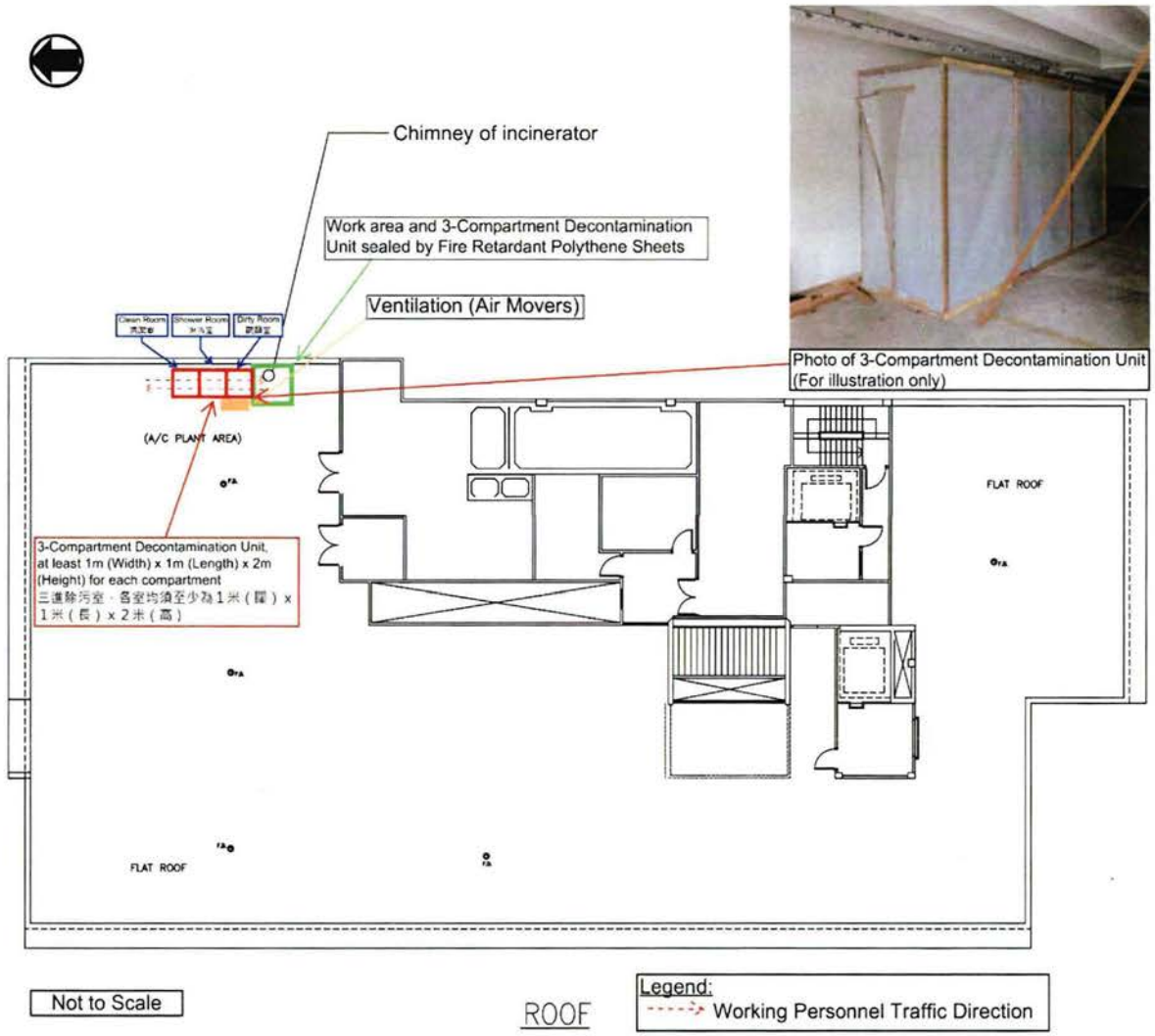


Illustration of the Works Area involved	Figure 5.2	wsp

APPENDIX

1.1 ENVIRONMENTAL PERMIT NO. EP-545/2017

本署檔號
OUR REF: (17) in EP2/H10/PT2/11
來函檔號
YOUR REF:
電　話
TEL. NO.: 2835 1122
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

18 October 2017

By Registered Post & By Fax [redacted]
Queen Mary Hospital
[redacted]

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

Project Title: Decommissioning and Disposal of Clinical Waste Incinerators at Block K, Queen Mary Hospital
(Application No. AEP-545/2017)

I refer to your above application received on 27 September 2017 for an environmental permit under Section 10(1) of the EIA Ordinance.

Please find enclosed the Environmental Permit (No. EP-545/2017) for the construction of the captioned Designated Project.

Under Section 15 of the 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/).

Should you have any queries on the above application, please contact Mr. Richard Wong of this department at 2835 1128.

Yours sincerely,

(Tony W.M. CHEUNG)
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 DECOMMISSION A DESIGNATED PROJECT
解除運作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 **Queen Mary Hospital** (hereinafter referred to as the "Permit Holder") to decommission 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**瑪麗醫院** (下稱"許可證持有人")以解除運作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 - 545/2017
Document in the Register 登記冊上文件	(1) Project Profile – Decommissioning and Disposal of Clinical Waste Incinerators at Block K, Queen Mary Hospital. (Register No.: PP-555/2017) 工程項目簡介 – 清拆及處理位於瑪麗醫院K座內之醫療廢物焚化爐工程 (登記冊編號: PP-555/2017) (2) The Director's letter of permission to apply directly for Environmental Permit dated 20 September 2017 (Ref.:(15) in EP2/H10/PT2/11) 署長於2017年9月20日發出准許直接申請環境許可證的信件 (檔案編號：(15) in EP2/H10/PT2/11) (3) Application for an Environmental Permit on 27 September 2017 (Application No.AEP-545/2017) 於 2017 年 9 月 27 日提交的環境許可證申請 (申請書編號 AEP-545/2017)

18 October 2017
2017 年 10 月 18 日
Date
日期

(Tony W. H. CHEUNG)
Principal Environmental Protection Officer
for Director of Environmental Protection
環境保護署署長
(首席環境保護主任 張偉雄 代行)

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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(s) 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部所提及的指定工程項目的說明:

Title of Designated Project(s) 指定工程項目的名稱	Decommissioning and Disposal of Clinical Waste Incinerators at Block K, Queen Mary Hospital. [Hereinafter referred to as "the Project"] 清拆及處理位於瑪麗醫院 K 座內之醫療廢物焚化爐工程 [本指定工程項目下稱 "工程項目"]
Nature of Designated Project(s) 指定工程項目的性質	Decommissioning of clinical waste incinerators 解除醫療廢物焚化爐的運作
Location of Designated Project(s) 指定工程項目的地點	Within the Block K of Queen Mary Hospital. The location of the Project and the floor plan of the incinerator plant room and associated chimneys are shown in Figure 1 and Figure 2 respectively attached to this Permit. 位於瑪麗醫院 K 座內。工程項目的位置及焚化爐房及相關煙囪的樓面平面圖分別載於本許可證夾附的圖 1 及圖 2。
Scale and Scope of Designated Project(s) 指定工程項目的規模和範圍	The Scope of the Project involves decommissioning and disposal of two abandoned clinical waste incinerators, two chimneys, all associated flues and ductworks in 2 Phases (see Figure 3). 工程項目範圍涉及兩個階段清拆及處理兩台醫療廢物焚化爐、兩支煙囪、全部相關的煙道及管道 (見圖 3)。

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PART C (PERMIT CONDITIONS)
C部 （許可證條件）

1. General Conditions
一般條件

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.
許可證持有人及任何從事工程項目的人士必須完全符合本許可證載列的全部條件。任何人士如有不符合本許可證的情況，可能違反《環境影響評估條例》（第 499 章）的規定，而當局可根據條例採取適當行動。

1.2 The Permit Holder shall ensure full compliance with all legislation from time to time in force including, without limitation to, the Air Pollution Control Ordinance (Cap. 311), Waste Disposal Ordinance (Cap. 354), Water Pollution Control Ordinance (Cap. 358) and Noise Control Ordinance (Cap. 400). 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.
許可證持有人須經常確保完全符合現行法例的規定，包括但不限於《空氣污染管制條例 》（第 311 章）、《廢物處置條例》（第 354 章）、《水污染管制條例》（第 358 章）及《噪音管制條例》（第 400 章）。本許可證本身不會就根據任何法例提起的法律程序構成任何抗辯理由，或根據任何法例默示任何批准。

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.
許可證持有人須印製本許可證的複本，連同本許可證所述的所有文件及本許可證 A 部所述文件，以供署長或獲授權人員任何時間內在本許可證所涵蓋的所有工地／辦事處查閱。凡提述本許可證，須包括本許可證所述的所有文件及登記冊內的相關文件。

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 decommissioning of the Project and shall mean the same hereafter.
許可證持有人須把本許可證的一份複本交予有關工地的負責人，並確保這些人士完全明白本許可證的所有條件與規定。工地是指解除運作工程項目的工地，下文所提及的工地亦屬同一意思。

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).
許可證持有人須在工程項目工地的所有車輛進出口或一處方便地點，顯眼地展示本許可證的複本，以供公眾在任何時間內閱覽。許可證持有人須確保在這些地點展示關於

本許可證（包括任何經修訂的許可證）的最新資料。許可證持有人如交回許可證的部分或全部，必須把其送交署長的通知書，在備有原有許可證的各處相同地點展示。遭暫時吊銷、更改或取消的許可證必須從工程項目工地除下，不再展示。

1.6 The Permit Holder shall decommission the Project in accordance with the project description in Part B of this Permit.
許可證持有人須依據本許可證 B 部的工程項目說明，解除運作工程項目。

1.7 The Permit Holder shall ensure that the Project is decommissioned in accordance with the information and recommendations described in the Project Profile (Register No. PP-555/2017), the application document for environmental permit, other relevant documents in the Register, the information and mitigation measures described in this Permit. 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.
許可證持有人須確保工程項目按照下述資料解除運作：登記冊內的工程項目簡介 (登記冊編號：PP-555/2017)所說明的資料及各項建議；環境許可證的申請文件；登記冊內的其他相關文件；本許可證所說明的資料或緩解措施。登記冊文件所述建議如沒有在本許可證明確表示，則仍須實施這些建議，除非獲本許可證明確豁除或另行獲署長同意。

1.8 The Permit Holder shall notify the Director in writing respective the commencement date of decommissioning of the Project under Phase 1 and Phase 2 no later than two weeks prior to the commencement of the respective decommissioning portion of the Project. The Permit Holder shall notify the Director in writing immediately if there is any change of the commencement date of the decommissioning (Condition 2.2 and 2.15).
許可證持有人須分別在工程項目的解除運作第一階段及第二階段工程展開前，至少提早 2 個星期以書面方式把相應的解除運作工程的施工日期通知署長。施工日期如有任何更改，許可證持有人必須立即以書面方式通知署長 (條件第 2.2 及 2.15 項) 。

1.9 For the purpose of this Permit, "commencement of decommissioning works" does not include works related to site clearance and preparation, or other works as agreed by the Director.
為執行本許可證，「解除運作工程的展開」不包括有關工地清理和預備工程，或署長同意的其他工程。

2. Specific Conditions
特定條件

Before Commencement of Decommissioning (For Both Phase 1 & Phase 2)
清拆工程展開前(第一階段及第二階段工程)

Employment of Environmental Audit Personnel
聘用環境審核人員

2.1 An Independent Environmental Checker (IEC) shall be employed by the Permit Holder before commencement of decommissioning. The IEC shall not be in any way an associated body of the Contractor 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 the Environmental Audit requirements described in the Project Profile (Register No.:PP-555/2017) including the implementation of all mitigation measures, submissions

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described in the Project Profile (Register No. PP-555/2017), and any other submissions required under this Permit.
在清拆工程展開前，許可證持有人須聘用一名獨立環境查核人。獨立環境查核人不得與工程項目的承辦商有任何聯繫。獨立環境查核人須在環監或環境管理方面至少有 7 年經驗。獨立環境查核人須負責審核整體環監表現，包括實施所有環境緩解措施、提交於工程項目簡介(登記冊編號：PP-555/2017) 內的環監規定所述的文件，以及提交本許可證所要求的其他文件

Phase 1 Decommissioning Works (Within the Incinerator Room) (See Figure 3)
第一階段的清拆工程 (在焚化爐房內) (見圖 3)

Before Commencement of Decommissioning
清拆工程展開前

2.2 The Permit Holder shall notify the Director in writing the commencement date of Phase 1 decommissioning works, no later than two weeks before the commencement of Phase 1.
許可證持有人須在第一階段清拆工程展開前，至少提早 2 個星期以書面方式把第一階段工程的施工日期通知署長。

Submission of Construction Noise Mitigation Measure Plan
提交建築噪音緩解措施計劃

2.3 To minimize the structural borne noise impacts on the noise sensitive receivers (NSRs) within Block K, the Permit Holder shall, no later than one month before the commencement of decommissioning or otherwise approved by the Director, submit to the Director for approval four hard copies and one electronic copy of a Construction Noise Mitigation Measures Plan (CNMMP) and other initiatives proposed by the Permit Holder. The Plan shall include:-

(i) a methodology of the decommissioning works; and

(ii) a proposal of structural borne noise mitigation measures for the NSRs within Block K including avoidance of breaking process during decommissioning, if practicable.

Before submission to the Director, the CNMMP shall be verified by the IEC. All measures recommended in the approved CNMMP shall be fully and properly implemented.

為減少經結構傳送的噪音對 K 座內的噪音感應強的地方的影響，許可證持有人除非另獲署長同意須在展開工程項目的解除運作工程前至少 1 個月，向署長提交建築噪音緩解措施計劃的 4 份硬複本及 1 份電子版本，以供審批。有關計劃須包括:

(i) 解除運作工程的施工方法; 以及

(ii) 為 K 座內的噪音感應強的地方提供經結構傳遞的噪音的緩解措施的建議，包括在解除運作期間避免破碎工序(如可行的話)。

建築噪音緩解措施計劃在提交署長前，須由獨立環境查核人核實。核准的建築噪音緩解措施計劃所建議的全部措施均須徹底及妥善執行。

2.4 Phase 1 works shall be carried out within the incinerator room as shown in Figure 3.
第一階段工程須在圖 3 所示的焚化爐房內進行。

2.5 Prior to the decommissioning of the incinerators, inner panels of incinerators, all internal surfaces including the ceiling, walls and the floor of the incinerator room shall be

decontaminated by using High Efficiency Particulate Air (HEPA) vacuum cleaner, scrubbing and wet wiping.
在清拆焚化爐前，焚化爐的內側板、焚化爐房內部所有天花、牆壁和地下表面均須用高效能空氣粒子過濾吸塵機，以及以洗擦和濕抹方法進行除污。

2.6 To achieve a full containment approach, the following measures shall be implemented before the commencement of any decommissioning works:

(i) All openings within the incinerator room and the works area as shown in Figure 2 shall be sealed with 3 layers of fire retardant polythene sheets;

(ii) A 3-compartment decontamination unit as shown in Figure 2 shall be constructed for entry into and exit from the works area. The unit shall comprise a dirty room, a shower room and a clean room. Each compartment shall be of a minimum size of 2m (height) x 1m (width) x 1m (length) and lined with 3 layers of fire retardant polythene sheets; and

(iii) Air movers equipped with HEPA filters shall be provided to maintain a negative pressure ranging from 1.5mm to 4mm of water within the works area and the 3-compartment decontamination unit described in Conditions 2.6(i) and 2.6(ii) above.

為取得全密封區方法的效果，須在任何清拆工程展開前實施以下措施：

(i) 焚化爐房內所有通道，以及圖 2 所示的工地範圍均須用 3 層防火膠布密封；

(ii) 為進出工地範圍，須搭建圖 2 所示三進除污室，內有一間骯髒室、一間淋浴室和一間清潔室，而各室均須至少為 2 米（高）x 1 米（闊）x 1 米（長）及鋪上 3 層防火膠布；以及

(iii) 為維持上文條件第 2.6(i)及 2.6(ii)項所說明的工地範圍及三進除污室內的負氣壓在 1.5 毫米至 4 毫米之間的表水壓，須提供配備高效能空氣粒子過濾器的空氣轉換機

2.7 To confirm air-tightness of the containment required under Condition 2.6, a smoke test shall be carried out in accordance with the following detailed steps immediately before the execution of decommissioning:

(i) The works area and the 3-compartment decontamination unit described in Conditions 2.6(i) and 2.6(ii) above shall be filled with non-toxic smoke using a smoke generator;

(ii) When the condition described in Condition 2.7(i) above is achieved, the smoke generator shall be switched off and a thorough check for smoke leakage outside the works area and the 3-compartment decontamination unit shall be carried out; and

(iii) Any leakage of smoke spotted, when fulfilling Condition 2.7(ii) above, shall be immediately rectified.

為確保按條件第 2.6 項所規定密封區的密封程度，須按下列詳細步驟進行煙霧測試，方可進行清拆工作：

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(i) 使用煙霧產生器，使上文條件第 2.6(i)及 2.6(ii)項所說明的工地範圍及三進除污室充滿無毒性煙霧；

(ii) 當達到上文條件第 2.7(i)項所說明的情況，便可關掉煙霧產生器，並到工地範圍及三進除污室外進行詳細的煙霧泄漏檢查；以及

(iii) 執行上文條件第 2.7(ii)項時，如發現有煙霧泄漏，便須立即補救。

During Decommissioning
清拆工程進行期間

2.8 To avoid the release of any residual ash, asbestos and dust to the surroundings, a negative pressure of 1.5mm to 4mm of water shall be maintained within the works area and the 3-compartment decontamination unit throughout the entire course of the decommissioning works.
為避免殘餘灰燼、石棉及塵埃釋放至四周環境，在進行清拆工程的整段期間，工地範圍及三進除污室內須維持負氣壓在 1.5 毫米至 4 毫米之間的表水壓。

2.9 All working personnel shall go through the decontamination procedures at the 3-compartment decontamination unit before leaving the works area.
所有工作人員須在三進除污室完成除污程序，才可離開工地範圍。

2.10 To decontaminate the incinerators and ash collectors, the residual ash inside the incinerators, ash collectors and on the surfaces of the walls and ceiling of the incinerators shall be removed by scrubbing. The internal surfaces of the incinerator room including walls, ceilings and ground shall then be cleaned with a HEPA vacuum cleaner and followed by wet wiping.
為焚化爐和灰燼收集器除污，在焚化爐內部、灰燼收集器內部以及在牆壁、地面和天花表面的殘餘灰燼須以洗擦方式清除。清除殘餘灰燼後的焚化爐內部包括焚化爐房牆壁、地面和天花表面，須以備有高效能空氣粒子過濾器的吸塵機除污，並加以濕拭。

2.11 The scrubbed materials and filtered materials from the HEPA vacuum cleaner shall be packaged on site and placed into polythene-lined steel drums for subsequent disposal.
經洗擦的物料及從高效能空氣粒子過濾吸塵機所隔濾出的物料，均須當場包裹，並放入鋪有膠布的鋼桶內。

2.12 All detached sections of the incinerators and ductworks upon removal shall be wrapped with three layers of fire retardant polythene sheets. The outermost wrapping shall be decontaminated by wet wiping in the works area.
清拆完成後，焚化爐以及所有相關管道，均須用 3 層防火膠布包裹。包裹膠布的最外層須在工地範圍內用濕抹方式除污。

Disposal of Wastes
廢物棄置

2.13 All polythene-lined steel drums containing residual ash collected from the incinerators and all associated flues and ductworks, used HEPA filters and the filtered materials from HEPA vacuum cleaner, clothes and other contaminated materials generated during the decommissioning process shall be disposed of at the Chemical Waste Treatment Centre.
載有從焚化爐、煙囪及所有相關煙道及管道收集的剩餘灰燼的所有鋪有膠

布的鋼桶、用過的高效能空氣粒子過濾器及從高效能空氣粒子過濾吸塵機被隔濾出的物料、衣物及在清拆過程中產生的其他受污染物料，均須送往化學廢物處理設施處置。

2.14 All detached sections of the incinerators and ductworks upon removal shall be wrapped with three layers of fire retardant polythene sheets. The outmost wrapping shall be decontaminated by wet wiping in the works area. The wrapped waste shall be disposed of at landfill.
清拆完成後，焚化爐以及所有相關煙道及管道，均須用 3 層防火膠布包裹。包裹膠布的最外層須在工地範圍內用濕抹方式除污。被包裹的廢物須送往堆填區棄置。

Phase 2 Decommissioning Works (2 Chimneys Inside Service Duct 1) (see Figure 3)
第二階段的清拆工程 (兩枝在維修管道 1 內的煙囪) (見圖 3)

Before Commencement of Decommissioning
清拆工程展開前

2.15 The Permit Holder shall notify the Director in writing the commencement date of the Phase 2 decommissioning works, no later than two weeks before the commencement of the Phase 2.
許可證持有人須在第二階段清拆工程展開前，至少提早 2 個星期以書面方式把第二階段工程的施工日期通知署長。

During Decommissioning
清拆工程進行期間

2.16 Prior to the completion of the demolition of the chimneys, no demolition works of Block K should be commenced to avoid demolition of chimneys and Block K at the same time.
為了避免清拆煙囪和K座的工程同時進行，在煙囪清拆完畢前，不可以進行任何清拆K座的工程。

Disposal of Wastes
廢物棄置

2.17 Insulation material, protective clothing of the workers and waste generated from the dismantling work and cloths used for wet wiping shall be stored in appropriate containers such as drums and jerricans for disposal of at landfill site.
絕緣材料、工人的防護衣物以及清拆工作中產生的廢物和用作濕布的布料均須儲存在適當的容器內，例如桶和罐然後運往堆填區處置。

3. **Environmental Audit Requirements (For Both Phase 1 & Phase 2)**
環境審核規定 (第一階段及第二階段工程)

3.1 The Permit Holder shall submit to the Director three hard copies and one electronic copy of the audit reports showing site audit information no later than 2 weeks before and upon completion of the Phase 1 and Phase 2 demolition work, as defined in the Project Profile (No. PP-555/2017)
許可證持有人需按照工程項目簡介(登記編號：PP-555/2017) 所訂明，在第一階段及第二階段清拆工程開始前和完成後須向署長提交審核報告包括工地審核資料的 3 份硬複本及 1 份電子版本。

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3.2 All audit results submitted under this Permit shall be true, valid and correct.
根據本許可證提交的所有審核結果，均須為有效及真實無誤。

Notes:
註：

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.
本許可證共有 3 部，即 A 部 (許可證主要部分)；B 部 (指定工程項目的說明) 及 C 部 (許可證條件)。任何援引本許可證的人士須就環評條例的法律含意徵詢獨立法律意見，下述註解只供一般參考用。

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.
如違反本許可證的任何條件，署長或獲授權人員徵得環境局局長的同意後可勒令停止相關工程，直至許可證持有人為所造成的環境損害採取補救行動為止。在此情況下，許可證持有人未經署長或獲授權人員同意，不得進行任何相關工程。

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.
許可證持有人可根據環評條例第 13 條的規定向署長申請更改本許可證的條件。許可證持有人須把經修改的許可證替換在工程項目工地內展示的原有許可證。

4. A person who assumes the responsibility for the whole or a part of the designated project(s) may, before he assumes responsibility of the designated project(s), apply under Section 12 of the EIAO to the Director for a further environmental permit.
承擔工程項目整項或部分工程的責任的人，在承擔責任之前，可根據環評條例第 12 條的規定向署長申請新的環境許可證。

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.
根據環評條例第 14 條的規定，署長可在環境局局長的同意下暫時吊銷、更改或取消本許可證。遭暫時吊銷、更改或取消的許可證必須從工程項目工地除下，不再展示。

6. If this Permit is cancelled or surrendered during decommissioning 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 decommission a designated project listed in Part II of Schedule 2 of the EIAO without a valid environmental permit.
如果本許可證在工程項目解除運作期間取消或交回，則在繼續進行工程項目之前，必須先根據環評條例規定取得另一份環境許可證。根據環評條例第 26(1)條的規定，任何人在沒有有效環境許可證的情況下解除運作環評條例附表 2 第 II 部所列明的指定工程項目，即屬犯罪。

7. Any person who decommissions the Project contrary to the conditions in the Permit, and is convicted of an offence under the EIAO, is liable:

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如任何人在違反本許可證的條件下解除運作工程項目，根據環評條例，即屬犯罪-

(i) on a first conviction on indictment to a fine of $2 million and to imprisonment for 6 months;
一經循公訴程序首次定罪，可處罰款 200 萬元及監禁 6 個月；

(ii) on a second or subsequent conviction on indictment to a fine of $5 million and to imprisonment for 2 years;
一經循公訴程序第二次或其後每次定罪，可處罰款 500 萬元及監禁 2 年；

(iii) on a first summary conviction to a fine at level 6 and to imprisonment for 6 months;
一經循簡易程序首次定罪，可處第 6 級罰款及監禁 6 個月；

(iv) on a second or subsequent summary conviction to a fine of $1 million and to imprisonment for 1 year; and
一經循簡易程序第二次或其後每次定罪，可處罰款 100 萬元及監禁 1 年；及

(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.
在任何情況下如該罪行屬連續性質，法院或裁判官可就其信納該罪行連續的每一天另處罰款 10,000 元。

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.
許可證持有人可在接獲本許可證後 30 天內，根據環評條例第 17 條就本許可證的任何條件提出上訴。

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.
上述註解只供一般參考用，欲知有關詳情，許可證持有人須參閱環評條例及徵詢獨立法律意見。

Environmental Permit No. EP-545/2017
環境許可證編號 EP-545/2017

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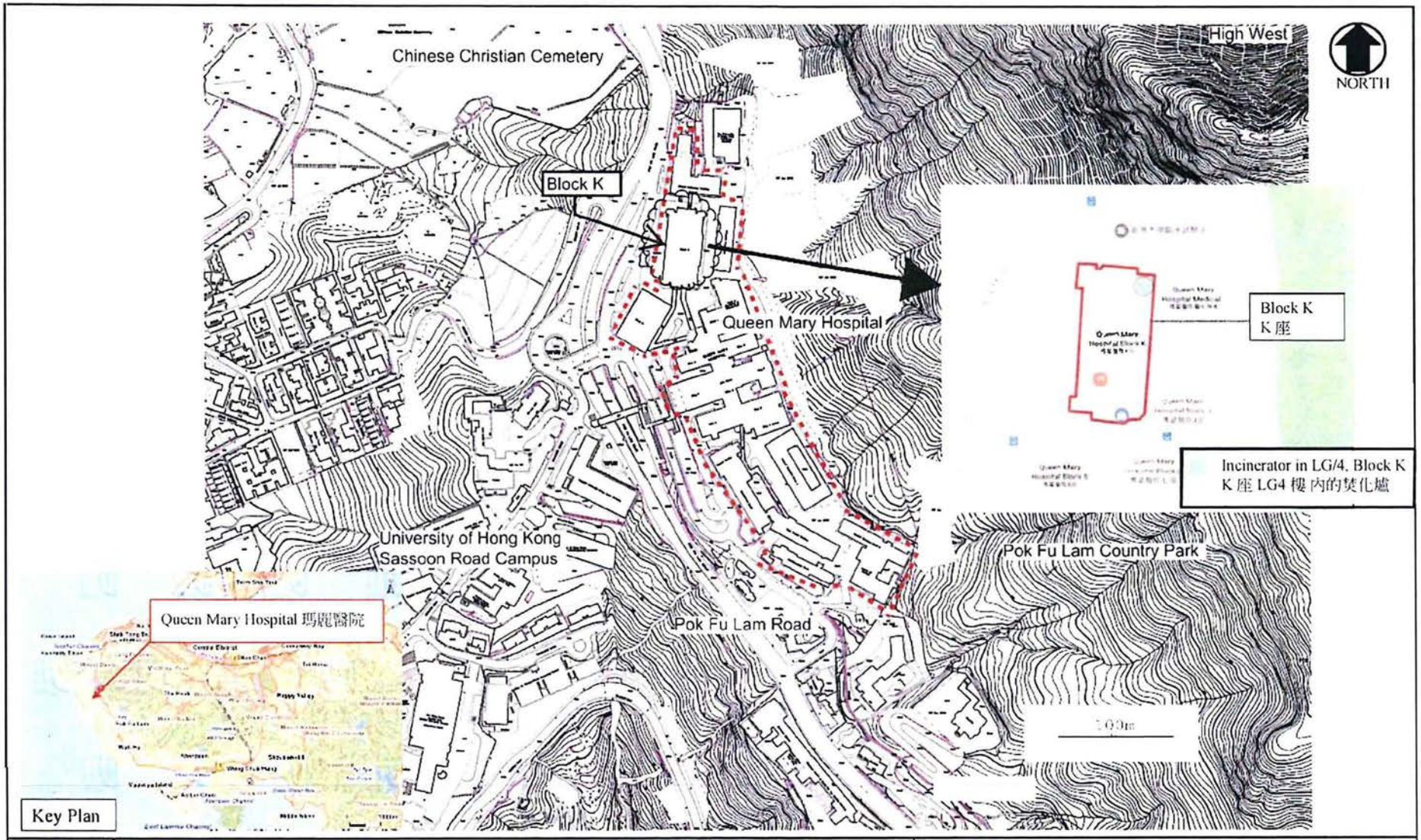

Project Title: Decommissioning and Disposal of Clinical Waste Incinerators at Block K, Queen Mary Hospital
工程名稱 ：清拆及處理位於瑪麗醫院 K 座內之醫療廢物焚化爐工程

Environmental Permit No. : EP-545/2017
環境許可證編號 ：EP-545/2017

Figure 1: Site Location of Block K, Queen Mary Hospital
圖 1: 瑪麗醫院 K 座位置圖

(This figure was prepared based on Figure 1.1 of the project profile (Register No. PP-555/2017))
(本圖是根據工程項目簡介(登記冊編號：PP-555/2017)圖 1.1 編制))

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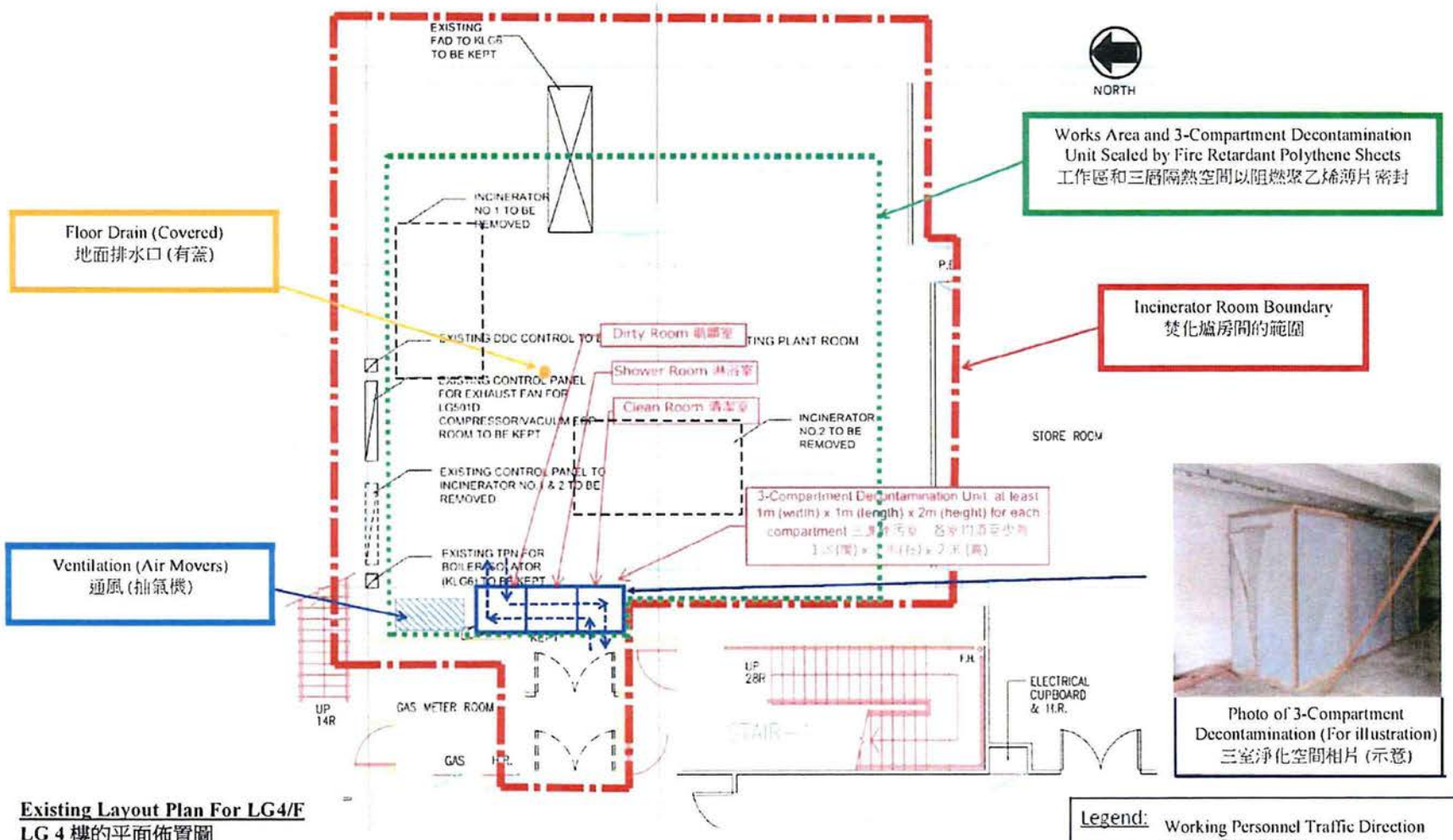

Existing Layout Plan For LG4/F
LG 4 樓的平面佈置圖

Project Title: Decommissioning and Disposal of Clinical Waste Incinerators at Block K, Queen Mary Hospital
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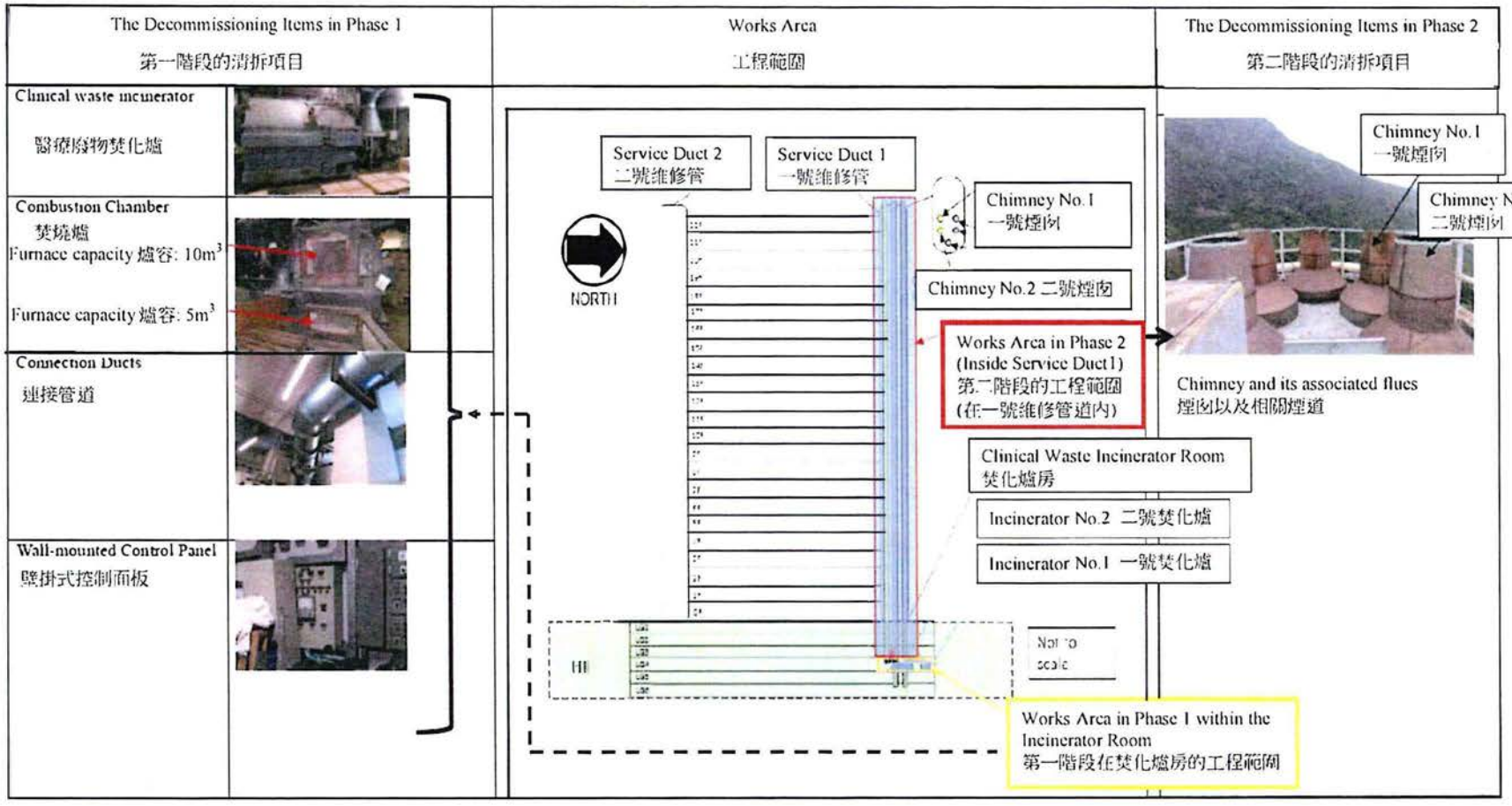
Environmental Permit No. : EP-545/2017
環境許可證編號 ：EP-545/2017

Figure 2: Floor Plan of the Incinerator Room
圖 2: 焚化爐房平面圖

(This figure was prepared based on Figure 5.1 of the project profile (Register No.: PP-555/2017))
(本圖是根據工程項目簡介(登記冊編號：PP-555/2017)圖 5.1 編制))

EIAO EPD



Phase 1 works within the Incinerator Room (Decommissioning of the 2 incinerator systems and ductworks)
第一階段在焚化爐房的工程 (清拆兩台焚化爐系統及管道)

Phase 2 works inside the Service Duct 1 (Decommissioning of the 2 chimneys connecting to the incinerator and all associated flues)
第二階段在一號維修管道的工程 (清拆兩支連接焚化爐房的煙囪以及全部相關煙道)

Project Title: Decommissioning and Disposal of Clinical Waste Incinerators at Block K, Queen Mary Hospital
工程名稱 : 清拆及處理位於瑪麗醫院 K 座內之醫療廢物焚化爐工程

Environmental Permit No. : EP-545/2017
環境許可證編號 : EP-545/2017

Figure 3: Works Area for Phase 1 and Phase 2
圖 3: 第一階段及第二階段的施工區

(This figure was prepared based on Figure 2.3 of the project profile (Register No.: PP-555/2017))
(本圖是根據工程項目簡介(登記冊編號：PP-555/2017)圖 2.3 編制))

APPENDIX

4.1 PHOTOS OF THE INCINERATOR AND ASSOCIATED CHIMNEY

Photo 1 The incinerator at 5/F of UPB

Photo 2 The incineration chamber door (top) and the bottom ash collection door (bottom) of the incinerator

Photo 3 Residual bottom ash at the bottom of the combustion chamber

Photo 4 Chimney of the incinerator

Photo 5 Wall-mounted control panel for the incinerator

Photo 6 Overview of the Incinerator Room