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RE-PROVISION OF OPEN CYCLE GAS TURBINES AT LAMMA POWER STATION

ENVIRONMENTAL PERMIT NO. EP-600/2022

WASTE MANAGEMENT PLAN

August 2022

Revision 1

Page

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1. <u>INTRODUCTION</u>

The Environmental Impact Assessment (EIA) for the Re-provision of Open Cycle Gas Turbines at Lamma Power Station [This designated project is hereafter referred to as "the Project"] has been completed and approved by the Environmental Protection Department (EPD) under the Environmental Impact Assessment Ordinance (EIAO) (EIA-276/2021, hereafter referred to as the approved EIA report). An Environmental Permit (EP-600/2022, hereafter referred to as the EP) has also been issued by EPD stipulating the environmental requirements pursuant to the Project.

Condition 2.10 of the EP set out requirements with regard to the Waste Management Plan (WMP) during decommissioning, construction and operation of the Project as follows:-

The Permit Holder shall, no later than 1 month before the commencement of decommissioning and construction of the Project, deposit with the Director 3 hard copies and 1 electronic copy of a WMP. The WMP shall describe the comprehensive separation of the Construction and Demolition materials, and also the arrangements for avoidance, minimization, recovery, recycling, reuse, storage, collection, treatment and disposal of different categories of waste to be generated from the decommissioning, construction and operation activities. The WMP shall include an implementation schedule in table form to clearly list out the amount and disposal outlet for the different types of waste arising, mitigation measures to be implemented, and the implementation party, location, timing, and environmental performance required for the implementation of the mitigation measures. All mitigation measures recommended and requirements specified in the WMP and the implementation schedule shall be fully implemented.

The EIA report concluded that with the implementation of good waste management practices at the work site, no adverse environmental impacts are envisaged for the handling, collection and disposal of waste arising during the decommissioning and construction of the Project.

This document sets out the WMP stipulating the arrangements for managing different categories of waste to be generated from decommissioning, construction and operation of the Project. The WMP aims to comply with the related legislative requirements and standards to implement measures on avoidance, minimization, recovery, recycling, reuse, storage, collection, treatment and disposal of different categories of waste, with an objective as to minimize any potential impact to the environment. The WMP shall be regularly reviewed and updated as appropriate, to confirm that it remains current with the latest detailed information and works practices.

2. <u>LEGISLATIVE REQUIREMENTS AND STANDANDS</u>

2.1 <u>Technical Memorandum</u>

• Annex 7 and 15 of the Technical Memorandum on Environmental Impact Assessment Process (EIAOTM) under the EIAO (Cap. 499)

2.2 Legislation of the Hong Kong SAR

- Environmental Impact Assessment Ordinance (Cap. 499)
- Factories and Industrial Undertakings (Asbestos) Regulation (Cap. 59)
- Waste Disposal Ordinance (Cap. 354)

- Waste Disposal (Amendment) Ordinance (Cap. 354)
- Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)
- Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C)
- Buildings Ordinance (Cap. 123)
- Land (Miscellaneous Provision) Ordinance (Cap. 28)
- Public Health and Municipal Services Ordinance (Cap. 132) Public Cleansing and Prevention of Nuisances Regulation
- 2.3 <u>Code of Practice</u>
 - Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
 - Code of Practice on the Handling, Transportation and Disposal of Asbestos Waste
- 2.4 Other Relevant Guidelines and Documents
 - Waste Disposal Plan for Hong Kong (December 1989), Planning, Environment and Lands Branch Government Secretariat, Hong Kong SAR Government
 - A Guide to the Chemical Waste Control Scheme
 - A Guide to the Registration of Chemical Waste Producers
 - Hong Kong Planning Standards and Guidelines Planning (2014), Planning Department, Hong Kong SAR Government
 - WBTC No. 2/93 Public Dumps, Works Branch, Hong Kong SAR Government
 - WBTC No. 2/93B Public Filling Facilities, Works Branch, Hong Kong SAR Government
 - WBTC No. 16/96 Wet Soil in Public Dumps, Works Branch, Hong Kong SAR Government
 - Waste Reduction Framework Plan, 1998 to 2007, Planning, Environment and Lands Bureau, Government Secretariat, 5 November 1998
 - WBTC No. 4/98 and 4/98A Use of Public Fill in Reclamation and Earth Filling Projects, Works Bureau, Hong Kong SAR Government
 - Project Administration Handbook for Civil Engineering Works, Section 3.3(i) of Chapter 2 and Section 4.13 of Chapter 4 - Incorporation of Information on Construction and Demolition Material Management in Public Works Subcommittee Papers, Hong Kong SAR Government
 - WBTC No. 12/2000 Fill Management, Works Bureau, Hong Kong SAR Government
 - WBTC No. 19/2001 Metallic Site Hoardings and Signboards, Works Bureau, Hong Kong SAR Government
 - Project Administration Handbook for Civil Engineering Works, Section 21.25 of Chapter 7 and Section 9.12 of Chapter 5 Control of Site Crushers, Hong Kong SAR Government
 - WBTC No. 12/2002 Specifications Facilitating the Use of Recycled Aggregates, Works Bureau, Hong Kong SAR Government
 - Project Administration Handbook for Civil Engineering Works, Section 4.1.3 of Chapter 4 Management of Construction and Demolition Material Including Rock, Hong Kong SAR Government

- ETWB TC(W) No. 19/2005 Environmental Management on Construction Sites, Environment, Transport and Works Bureau, Hong Kong SAR Government
- DevB TC(W) No. 6/2010 Trip Ticket System for Disposal of Construction & Demolition Materials, Development Bureau, Hong Kong SAR Government
- DevB TC(W) No. 08/2010 Enhanced Specification for Site Cleanliness and Tidiness
- DevB TC(W) No. 2/2011 Encouraging the Use of Recycled and other Green Materials in Public Works Projects
- DevB TC(W) No. 9/2011 Enhanced Control Measures for Management of Public Fill
- Hong Kong Blueprint for Sustainable Use of Resources 2013 2022, Environment Bureau, Hong Kong SAR Government
- Waste Blueprint for Hong Kong 2035, Environment Bureau, Hong Kong SAR Government
- 2.5 <u>Company Environmental Policy</u>
 - HKEI Environmental Policy March 2022
- 2.6 Lamma Operating Procedures
 - DEWI/03 Handling Chemical Wastes
 - DEWI/06 A Guideline for Working with Asbestos Containing Materials

3. <u>RESPONSIBILITIES</u>

- 3.1 <u>Site Manager</u>
 - Ensure that the waste management is in compliance with the statutory requirements of HKSAR
 - Ensure that adequate resources are provided for implementation of the Waste Management Plan
 - Provide active support for implementation of the Waste Management Plan
 - Take follow-up actions on any defect or non-compliance on Waste Management
- 3.2 Environmental Officer
 - Assist Site Manager in the implementation of the Waste Management Plan
 - Ensure the waste management works are being carried out in full compliance with the latest statutory requirements
 - Implement the environmental monitoring work
 - Collect information associated with the Waste Management Plan and compile Daily Record Summary and Monthly Waste Flow Table
- 3.3 <u>Site Engineer</u>
 - Implement routine procedures on handling wastes and ensure that wastes are labelled, package, stored and disposed of properly in accordance with the Waste Management Plan and its associated procedures
 - Carry out surveillance inspection and report any spillage and accidental disposal of waste

- Coordinate the handling of emergency cases, including chemical incidence and oil spillage
- Coordinate the collection, storage and disposal of general wastes

3.4 <u>Foreman</u>

- Ensure the safe loading condition of the waste collection trucks
- Ensure the drivers of the waste collection trucks have duly completed, signed and stamped trip tickets

3.5 <u>Contractor(s)</u>

Any person or party under the contract of this work shall be

• Aware of and follow the environmental mitigation measures required by the Waste Management Plan

4. <u>IDENTIFICATION OF WASTE ARISINGS</u>

4.1 During the Construction and Decommissioning / Demolition (C&D) Phase

The decommissioning / demolition and construction phase involve the following waste types associate with the waste-generation activities: -

- C&D materials from demolition and removal of existing units and associated equipment / parts;
- Excavated materials (soil and rock) from the construction of new cables trenches and new staircase and lift as well as reconstruction works inside GTAB;
- C&D materials from minor civil works;
- Chemical waste from decommissioning of existing units, maintenance of construction plant and equipment, and commissioning of new units; and
- General refuse from construction workforce.

4.2 <u>During the Operation Phase</u>

The operation phase involves the following waste types associate with the waste-generation activities: -

- Chemical waste from maintenance of the plant and equipment; and
- General refuse from site operation.

5. <u>WASTE MANAGEMENT</u>

Different types of waste will be segregated in different containers or slips or designated store area to enhance reuse and recycling of materials and proper disposal of waste.

5.1 <u>During the Construction and Decommissioning / Demolition (C&D) Phase</u>

5.1.1 C&D Materials (From Demolition)

The existing foundation and reinforced concrete structures of the existing units will be reused for the new units as far as practicable and thus broken concrete arising from the demolition of existing units would be minimal.

C&D materials arising from the demolition of the existing GT2 to GT7 will be primarily scrap metals from the demolition of the aboveground steel structures sitting on top of the existing reinforced concrete structures. The scrap metal produced will be sent to recycler for recycling as far as practicable. Other C&D materials generated from the demolition works would be minimal.

The C&D materials will be segregated at source and temporarily stored on site. The C&D materials will be transported to the existing LPS jetty and delivered off-site for recycling or disposal at landfills and public fill reception facilities. The C&D materials will be entirely covered before leaving the site and during transportation.

5.1.2 Excavated Materials

Excavated materials will be generated from the construction of the new cable trenches across the GT compound and the new staircase and lift at the immediate east of the GTAB. Minor excavation will also be required at the existing Turbo Block structure to be demolished within the GTAB as part of its conversion to the new 132kV Switching Station.

The excavated materials, which mainly comprise top soil and artificial hard materials (i.e. broken concrete and asphalt), will be reused for backfilling on site as far as practicable before being disposed of off-site at the public fill reception facilities. The excavated materials will be entirely covered before leaving the site and during transportation.

5.1.3 C&D Materials (From Minor Civil Works)

C&D materials (consisting of waste concrete, wood, packing materials, plastics, etc.) will be generated from the construction of the new units and the new staircase and lift at the immediate east of the GTAB. The C&D materials produced on-site will be sorted on-site into an inert portion (i.e. public fill) and non-inert portion (i.e. construction waste). Recyclables, such as plastics and cardboard, will be segregated for recycling as far as practicable.

Public fill and construction waste will be delivered to the public fill reception facilities and landfills, respectively, while the recyclables will be sent to recyclers for recycling. The C&D materials will be entirely covered before leaving the site and during transportation.

As the quantity of C&D materials to be generated from civil works under the Project are expected to be minimal, the handling, transportation and disposal of the associated C&D materials would not cause unacceptable environmental impact (including dust, noise, water quality) with the implementation of good construction site practices.

5.1.4 Chemical Waste

Chemical waste, as defined under the Waste Disposal (Chemical Waste) (General) Regulation, includes any unwanted substances specified under Schedule 1 of the Regulation. Substances likely to be generated from the decommissioning/ demolition and construction of the Project will include:

- Leftover diesel, petroleum products or chemicals within the existing units and equipment to be demolished;
- Used paint, engine oils, hydraulic fluids and waste fuel;
- Spent mineral oils/cleaning fluids from mechanical machinery; and
- Spent solvents/ solutions from equipment cleaning activities.

Chemical wastes may pose environmental, health and safety hazards if not stored and disposed of in an appropriate manner as outlined in the Waste Disposal (Chemical Waste) (General) Regulation and the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. These hazards may include:

- Toxic effects to workers;
- Adverse effects on air, water and land from spills; and
- Fire hazards.

With respect to the scale of the decommissioning/ demolition and construction activities, it is anticipated that the quantity of chemical waste to be generated is about a few hundred litres per month throughout the decommissioning/ demolition and construction of the Project. The chemical waste will be collected by licensed chemical waste collectors and delivered to the licensed chemical waste treatment facilities for disposal (i.e. Chemical Waste Treatment Centre (CWTC) in Tsing Yi). With the incorporation of suitable arrangements for the storage, handling, transportation and disposal of chemical Waste) (General) Regulation and the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes, no adverse environmental impact (including air and odour, noise, water quality) or other hazards will result from the handling, transportation and disposal of chemical from the Project.

5.1.5 General Refuse

The presence of a construction site with workers and associated site office will result in the generation of general refuse (mainly consists of food waste, aluminium cans, plastic bottles, waste paper and glass bottles) which requires off-site disposal. The storage of general refuse has the potential to give rise to adverse environmental impacts, if not properly managed. These include odour if the waste is not collected frequently, windblown litter and visual impact.

To reduce the quantity of general refuse to be disposed of at landfill, recyclable materials (i.e. paper, plastic bottles, aluminium cans and glass bottles) will be segregated on-site for off-site recycling, as far as practicable. Adequate number of enclosed waste containers and recycling bins will be provided to avoid overspillage of waste and/ or recyclable materials.

The non-recyclable refuse will be placed in bags and collected together with other general refuse generated from the LPS by existing waste management contractor at LPS, and subsequently disposed of at the landfills on a daily basis. Given that the quantity of general refuse to be disposed of at the landfills is small, no adverse impact on the operation of the landfills is anticipated.

5.2 <u>During the Operation Phase</u>

5.2.1 Chemical Waste

The major types of chemical waste expected to be generated from the operation and maintenance of the new units include oil contaminated items, paint contaminated items, spent lubricant, solvent, etc., similar to those generated by the existing units. All chemical waste will be collected by licenced chemical waste collectors and delivered to the CWTC for disposal. With the incorporation of suitable arrangements for storage, handling, transportation and disposal of chemical wastes in accordance with the requirements stated in the Waste Disposal (Chemical Waste) (General) Regulation and the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes, no adverse environmental impact (including air and odour, noise, water quality) or other hazards will result from the handling, transportation and disposal of chemical waste arising from the operation of the Project.

5.2.2 General Refuse

General refuse will arise from the site staff and site operation. General refuse may consist of food waste, plastic, glass bottles, waste paper, scrap metals etc. Source separation with the provision of recycling bins will continue to be conducted under the operation of the new units following existing waste management practices at LPS. Recyclable materials (i.e. paper and metals) will be separated for recycling, in order to reduce the amount of general refuse to be disposed of at landfill. As there will be no change in the number of site staff and that site operation with the new units remains largely the same as the existing operation, the quantity of general refuse to be generated during the operation of the Project is expected to be similar to that generated during existing operation.

The non-recyclable waste will be delivered to the landfills on a daily basis following existing waste management arrangement at LPS. As the general refuse to be disposed of at the landfills under the operation of the Project is of similar and small quantity as in existing operation, no adverse impact on the operation of the landfills is anticipated.

6. <u>MITIGATION MEASURES</u>

6.1 <u>Segregation of Waste</u>

The wastes of the following types shall be segregated for further handling: -

- C&D Materials;
- Chemical Waste;
- General Refuse; and
- Waste to be reused and recycled.

6.2 <u>Waste Disposal</u>

The contractor(s) will open a billing account with the EPD in accordance with the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Every construction waste or public fill load to be transferred to Government waste disposal facilities (e.g. public fill reception facilities, sorting facilities and landfills) will be provided with a valid "chit" which contains the information of the account holder to

facilitate waste transaction recording and billing to the waste producer. A trip ticket system will also be established in accordance with DevB TC(W) No. 6/2010 to monitor the disposal of construction waste at landfill and to control fly-tipping. The trip-ticket system will be included as one of the contractual requirements and implemented by the contractor(s). Scrap metals generated from the demolition of aboveground steel structures and other recyclables (e.g. plastics, timber, cardboard) generated during the decommissioning/ demolition and construction phase will be segregated and sent to recycler for recycling as far as practicable.

6.3 <u>Reduction of Excavated Materials and C&D Materials</u>

C&D materials will be segregated on-site into public fill and construction waste and stored in different containers or skips to facilitate reuse of the public fill and proper disposal of the construction waste.

6.4 <u>Chemical Waste</u>

The contractor(s) will register as a chemical waste producer with the EPD. Chemical waste will be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes as listed below.

Containers used for storage of chemical wastes will:

- Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed;
- Have a capacity of less than 450 L unless the specifications have been approved by the EPD; and
- Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulations.

The storage area for chemical wastes will:

- Be clearly labelled and used solely for the storage of chemical waste;
- Be enclosed on at least 3 sides;
- Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest;
- Have adequate ventilation;
- Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and
- Be arranged so that incompatible materials are appropriately separated.

Chemical waste will be disposed of:

- Via a licensed waste collector; and
- To a facility licensed to receive chemical waste, such as the CWTC which also offers a chemical waste collection service and can supply the necessary storage containers.

6.5 <u>General Refuse</u>

General refuse will be stored in enclosed bins separately from C&D materials and chemical wastes. General refuse will be delivered separately from C&D materials and chemical wastes for offsite disposal on a daily basis to reduce odour, pest and litter impacts. Recycling bins will be provided at strategic locations within the Project site to

facilitate recovery of recyclable materials (including aluminium can, waste paper, glass bottles and plastic bottles) from the Project site.

6.6 <u>Staff Training</u>

At the commencement of the decommissioning/ demolition and construction works, regular training will be provided to update and refresh the workers on the concepts of site cleanliness, handling of chemical spillage and on appropriate waste management procedures, including waste reduction, reuse and recycling.

6.7 <u>Waste Record</u>

Amount of waste recycled and disposed of should be clearly recorded and the record should be available for inspection upon request.

The following information shall be submitted to HK Electric regularly:-

- Trip Ticket Form for each and every vehicular trip transporting C&D material off site including Public Fill or C&D Waste;
- Monthly Summary Waste Flow Table; and
- Yearly Summary Waste Flow.

7. MEASURES FOR MINIMIZING THE DISPOSAL OF WASTE

- 7.1 <u>Design Perspective</u>
 - 7.1.1 C&D Materials from Demolition

The existing foundation and reinforced concrete structures of the existing units will be reused for the new units as far as practicable and thus broken concrete arising from the demolition of existing units would be minimal.

7.1.2 C&D Materials from Minor Civil WorksPrefabrication will be adopted as far as practicable to reduce the construction waste arisings.

7.2 <u>Construction Perspective</u>

7.2.1 C&D Materials from Demolition

The scrap metal produced will be sent to recycler for recycling as far as practicable. Other C&D materials generated from the demolition works (e.g. plastics, timber, cardboard) would be minimal.

The C&D materials will be segregated on-site into public fill and construction waste and stored in different containers or skips to facilitate reuse of the public fill and proper disposal of the construction waste.

Specific areas of the Project site will be designated for such segregation and storage if immediate use is not practicable.

7.2.2 Excavated Materials

The excavated materials, which mainly comprise top soil and artificial hard materials (i.e. broken concrete and asphalt), will be reused for backfilling on

site as far as practicable before being disposed of off-site at the public fill reception facilities.

The excavated materials will be segregated on-site into public fill and construction waste and stored in different containers or skips to facilitate reuse of the public fill and proper disposal of the construction waste.

Specific areas of the Project site will be designated for such segregation and storage if immediate use is not practicable.

7.2.3 C&D Materials from Minor Civil Works

The C&D materials produced on-site will be sorted on-site into an inert portion (i.e. public fill) and non-inert portion (i.e. construction waste). Recyclables, such as plastics and cardboard, will be segregated for recycling as far as practicable.

Public fill and construction waste will be stored in different containers or skips to facilitate reuse of the public fill and proper disposal of the construction waste.

Specific areas of the Project site will be designated for such segregation and storage if immediate use is not practicable.

7.2.4 General Refuse

The presence of a construction site with workers and associated site office will result in the generation of general refuse (mainly consists of food waste, aluminium cans, plastic bottles, waste paper and glass bottles) which requires off-site disposal.

To reduce the quantity of general refuse to be disposed of at landfill, recyclable materials (i.e. paper, plastic bottles, aluminium cans and glass bottles) will be segregated on-site for off-site recycling, as far as practicable. Adequate number of enclosed waste containers and recycling bins will be provided to avoid over-spillage of waste and/ or recyclable materials.

The non-recyclable refuse will be placed in bags and collected together with other general refuse generated from other areas and subsequently disposed of at the landfills on a daily basis.

7.2.5 Chemical Waste

Chemical waste generated from the Project will include:

- Leftover diesel, petroleum products or chemicals within the existing units and equipment to be demolished;
- Used paint, engine oils, hydraulic fluids and waste fuel;
- Spent mineral oils/cleaning fluids from mechanical machinery;
- Spent solvents/ solutions from equipment cleaning activities; and
- Used lube oil for flushing during the testing and commissioning of the new units.

The chemical waste will be collected by licensed chemical waste collectors and delivered to the licensed chemical waste treatment facilities for disposal (i.e. Chemical Waste Treatment Centre (CWTC) in Tsing Yi).

7.3 <u>Operation Perspective</u>

7.3.1 General Refuse

General refuse will arise from the site staff and site operation. General refuse may consist of food waste, plastic, glass bottles, waste paper, scrap metals etc. Source separation with the provision of recycling bins will continue to be conducted under the operation of the new units following existing waste management practices at LPS. Recyclable materials (i.e. paper and metals) will be separated for recycling, in order to reduce the amount of general refuse to be disposed of at landfill.

7.3.2 Chemical Waste

The major types of chemical waste expected to be generated from the operation and maintenance of the new units include oil contaminated items, paint contaminated items, spent lubricant, solvent, etc., similar to those generated by the existing units. All chemical waste will be collected by licenced chemical waste collectors and delivered to the CWTC for disposal.

7.4 <u>On-site Promotion and Management</u>

7.4.1 Poster Presentation

Poster of environmental information will be presented in a public area to raise staff environmental awareness. The principle of 3Rs (Reducing, reusing and recycling) will be introduced in the poster.

7.4.2 Inspection Briefing

Briefings will be provided to site staff to remind any environmental issues and waste management measures during monthly environmental inspection.

7.4.3 Staff Training

Training on waste management, including the policy, targets, control measure for on-site sorting, C&D materials and measurement on waste management on site (including waste reduction, reuse and recycling; and handling of chemical spillage) should be provided to site staff and workers regularly.

8. <u>SUMMARY</u>

The WMP shall be regularly reviewed and updated as appropriate, to confirm that it remains current with the latest detailed information and works practices.

With the implementation of good site practices, adverse environmental impacts (including air and odour, noise and water quality) or other hazards arising from the management and disposal of waste during the decommissioning / demolition, construction and operation phases are not anticipated. The estimated waste arisings and

recommend waste management arrangements during the decommissioning/ demolition, construction and operation phases of the Project are summarised in Table 8.1.

Types of Waste	Estimated Quantity	Disposal Outlets / Waste Management Arrangement	Mitigation Measures	Implementation Party, Location, Timing and Environmental Performance Required
Decommissioning	/ Demolition and C	onstruction Phase		
C&D materials (Demolition works)	Scrap metals: 4,500 tonnes	 Off-site recycling Disposed of at landfill sites directly or via Outlying Island Transfer Facilities 	• The C&D materials will be segregated at source	• Contractor(s) shall implement the waste management arrangements and mitigation measures about once per two weeks on average, to follow the EP and EM&A requirements, and to report any defect or non- compliance to the Site personnel
	Other non-inert C&D materials (e.g. plastics, timber, cardboard): 100 m ³	 Off-site recycling Disposed of at landfill sites directly or via Outlying Island Transfer Facilities 	 On-site segregation The C&D materials will be segregated at source and temporarily stored on site at specific areas 	
	Inert C&D materials (e.g. broken concrete): 720 m ³	 On-site reuse Sent to public fill reception facilities directly or Outlying Island Transfer Facilities 	• The existing foundation and reinforced concrete structures of the existing units will be reused for the new units as far as practicable	
C&D materials (Civil works)	Inert C&D materials: 84 m ³	 Off-site recycling Sent to public fill reception facilities directly or Outlying Island Transfer Facilities 	• On-site segregation into an inert portion (i.e. public fill) and non-inert portion (i.e. construction waste)	• Contractor(s) shall implement the waste management arrangements and mitigation measures on a regular basis, to follow the EP and EM&A requirements, and to report any defect or non- compliance to the Site personnel
	Non-inert C&D materials: 21 m ³	• Disposed of at landfill sites directly or via Outlying Island Transfer Facilities	 The C&D materials will be temporarily stored on site at specific areas Prefabrication will be adopted as far as practicable to reduce the construction waste arisings 	
Excavated materials	5,000 m ³	 On-site reuse for backfilling Sent to public fill reception facilities directly or Outlying Island Transfer Facilities 	• Will be properly covered before leaving the site and during transportation	 Contractor(s) shall implement the waste management arrangements and mitigation measures about 1 barge trip per 3-4 months on average

 Table 8.1 Estimated Waste Arisings and Recommended Waste Management

 Arrangements

				to follow the EP and EM&A requirements, and to report any defect or non- compliance to the Site personnel
Chemical waste	Few hundred litres per month	• Disposed of at CWTC or other licensed chemical waste treatment facilities	 Chemical waste will be disposed of: Via a licensed waste collector; and To a facility licensed to receive chemical waste, such as the CWTC which also offers a chemical waste collection service and can supply the necessary storage containers. The storage area for chemical wastes shall follow the requirements in the approved EIA Report 	 Contractor(s) and licensed waste collectors shall implement the waste management arrangements and mitigation measures every month in accordance with the requirements stated in the Waste Disposal (Chemical Waste) (General) Regulation and the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
General refuse	162.5kg per day	 Recyclable materials: on-site sorting and offsite recycling Non-recyclable refuse: disposed of at landfill sites directly or via Outlying Island Transfer Facilities 	• Source separation with the provision of recycling bins will continue to be conducted under the operation of the new units following existing waste management practices at LPS	• Contractor(s) shall implement the waste management arrangements and mitigation measures on a daily basis, to follow the EP and EM&A requirements, and to report any defect or non-compliance to the Site personnel
Operation Phase				
Chemical waste	Few hundred litres per month	• Disposed of at CWTC or other licensed chemical waste treatment facilities	 Chemical waste will be disposed of: Via a licensed waste collector; and To a facility licensed to receive chemical waste, such as the CWTC which also offers a chemical waste collection service and can supply the 	• Contractor(s) and licensed waste collectors shall implement the waste management arrangements and mitigation measures every month in accordance with the requirements stated in the Waste Disposal (Chemical Waste) (General) Regulation and the Code of

			necessary storage containers	Practice on the Packaging, Labelling and Storage of Chemical Wastes
General refuse	Insignificant quantity	 Recyclable materials: on-site sorting and offsite recycling Non-recyclable refuse: disposed of at landfill sites directly or via Outlying Island Transfer Facilities 	• Source separation with the provision of recycling bins will continue to be conducted under the operation of the new units following existing waste management practices at LPS	• Contractor(s) shall implement the waste management arrangements and mitigation measures on a daily basis, to follow the EP and EM&A requirements, and to report any defect or non-compliance to the Site personnel