

# **Enhanced Ash Utilisation and Water Management Facilities at Castle Peak Power Station**

**Monthly Audit Report for December 2020** 

January 2021

#### **AECOM ASIA CO. LTD.**

#### Disclaimer:

This report is prepared for Castle Peak Power Company Limited (CAPCO) and is given for its sole benefit in relation to and pursuant to Enhanced Ash Utilisation and Water Management Facilities at Castle Peak Power Station and may not be disclosed to, quoted to or relied upon by any person (other than CAPCO) without our prior written consent. No person other than CAPCO into whose possession a copy of this report comes may rely on this report without our express written consent and CAPCO may not rely on it for any purpose other than as described above.

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#### 1 INTRODUCTION

#### 1.1 Project Background

- 1.1.1 Pursuant to the Environmental Impact Assessment Ordinance (EIAO), the Director of Environmental Protection (DEP) granted an environmental permit (No. EP-441/2012) to the Castle Peak Power Company Limited (CAPCO) on 23 July 2012 to construct and operate the designated project for Enhanced Ash Utilisation and Water Management Facilities at Castle Peak Power Station (hereinafter referred to as "the Project"). An application for variation of environmental permit (VEP) was subsequently made and the revised EP (No: EP-441/2012/A) was issued by DEP on 29 June 2018.
- 1.1.2 CAPCO appointed AECOM Asia Company Limited (AECOM) as the Independent Checker (IC) to undertake environmental audit work for the Project. Yee Hop Engineering Company Limited is the Contractor for construction of Ash Silo, while Guangxi Electric Power Design Institute Company Limited is the Contractor for the enhancement works of Water Management Facilities.

#### 1.2 Purpose of the Report

1.2.1 Under the EP Condition 2.3, the audit for the implementation of all mitigation measures recommended in the Project Profile (Register No. PP-468/2012) commenced in November 2019. This is the fourteenth Monthly Audit Report which summarises the audit findings for the Project during the reporting period from 1 to 31 December 2020.

#### 1.3 Report Structure

- 1.3.1 This Monthly Audit Report is organised as follows:
  - Section 1: Introduction
  - Section 2: Project Information
  - Section 3: Environmental Site Inspection
  - Section 4: Implementation Status of Environmental Mitigation Measures
  - Section 5: Conclusions

#### 2 PROJECT INFORMATION

#### 2.1 Site Description

2.1.1 The Project site is located within the boundary of the existing Castle Peak Power Station (CPPS). The locations of the key project components are shown in **Appendix A**.

#### 2.2 Construction Programme and Activities

2.2.1 The major construction activities of the Project undertaken in the reporting month includes:

#### Ash Silo Construction Works

- · Reinstatement of concrete pavement, and
- Laying bituminous material

#### Water Management facilities Enhancement Works

- Site formation for Plant Room;
- Pour blinding for Process Water Tank (South part);
- Formwork erection and rebar fixing of footing for Process Water Tank (North part);
- Pour concrete of base slab for Process Water Tank (North part);
- Concrete curing work to prevent surface cracks for Process Water Tank;
- Erect formwork and re-bar fixing for Water Filtration Pit (Phase1);
- Pour concrete of base slab and external wall for Water Filtration Pit; and
- Trial pit for construction of pile pipe wall for drainage modification.
- 2.2.2 The major construction activities for the coming month includes:

#### Ash Silo Construction Works

- Installation of Silo Tank;
- Installation of superstructure.

#### Water Management Facilities Enhancement Works

- Formation erection and re-bar fixing or base slab of Plant Room;
- Erect formwork, falsework, steel fixing for wall and column of Plant Room;
- Backfill trench and base plate installation for Process Water tank;
- Erect external and internal scaffolding, formwork erection and rebar fixing for Water Filtration Pit:
- Foundation construction for Strainer;
- Removal of the existing plants near the lagoon 2;
- Pump plinths construction and
- Installation of pipe piles at Jetty Area.
- 2.2.3 The construction programmes for the above-mentioned construction / enhancement works are presented in **Appendix B**.

#### 2.3 Status of Environmental Licences, Notification and Permits

2.3.1 Relevant environmental licences, permits and/or notifications on environmental protection for this Project and valid in the reporting month are summarised in **Tables 2.1** and **2.2**.

AECOM 2 January 2021

Table 2.1 Status of Environmental Licences, Notifications and Permits for Ash Silo Construction Works

Permit / Licence No. / Notification/ Reference	Valid Period		Status	Remarks
No.	From	То		
Environmental Permit			<u> </u>	
EP-441/2012/A	29 June 2018		Valid	
Billing Account for Cons	struction Waste D	isposal		
7033071	25 January 2019	-	Valid	
Notification Under Air Po	ollution Control (	Construction D	oust) Regulation	•
444243	15 April 2019		Valid	<u> </u>

Table 2.2 Status of Environmental Licences, Notifications and Permits for Water Management Facilities Enhancement Works

Permit / Licence No. / Notification/ Reference	Valid F	Period	Status	Remarks
No.	From	То		
Environmental Permit				
EP-441/2012/A	29 June 2018		Valid	
Billing Account for Cons	 struction Waste L	 Disposal		
7037396	27 May 2020		Valid	
Notification Under Air Po	 ollution Control (	Construction Du	st) Regulation	
455899	7 May 2020		Valid	
Notification of Commen	cement of Asbes	 tos Abatement V	Vork	
AX200323	14 July 2020		Valid	
Construction Noise Peri	nit			
GW-RW0337-20	30 July 2020	21 January 2021	Valid	
Dischause License				
Discharge Licence	T	T		
WT0036990-2020	12 November 2020	30 November 2025	Valid	

#### 3 ENVIRONMENTAL SITE INSPECTION

#### 3.1 Environmental Site Inspection

- 3.1.1 Site inspections were carried out by the IC on a bi-weekly basis to monitor the implementation of mitigation measures for the Project.
- 3.1.2 In the reporting month, the site inspections were carried out jointly with the Contractor on 16 and 29 December 2020, respectively. No non-compliance was recorded during the site inspections. Findings and recommendations for the site inspections are summarised below. Details of observations recorded during the site inspections are presented in **Appendix C**.

#### Ash Silo Construction Works

- 16 December 2020
  - No specific observation was identified in this inspection.
- 29 December 2020
  - The Contractor was reminded to replace the damaged Environment Permit.

#### Water Management facilities Enhancement Works

- 16 December 2020
  - The exposed area was observed dry. The Contractor was advised to provide watering regularly for dust suppression; and
  - The Contractor was reminded to fence the waste collection area for enhance the waste management.
- 29 December 2020
  - No specific observation was identified in this inspection.
- 3.1.3 All follow-up actions requested by the IC during the site inspections were taken as reported by the Contractor and confirmed by the IC in the subsequent site inspections. There was no follow-up action outstanding at the time of preparing this report.

#### 4 IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

4.1.1 The Contractor has implemented all the relevant environmental mitigation measures as recommended in the Project Profile. The implementation status of the environmental mitigation measures during the reporting period is summarised in **Appendix D**.

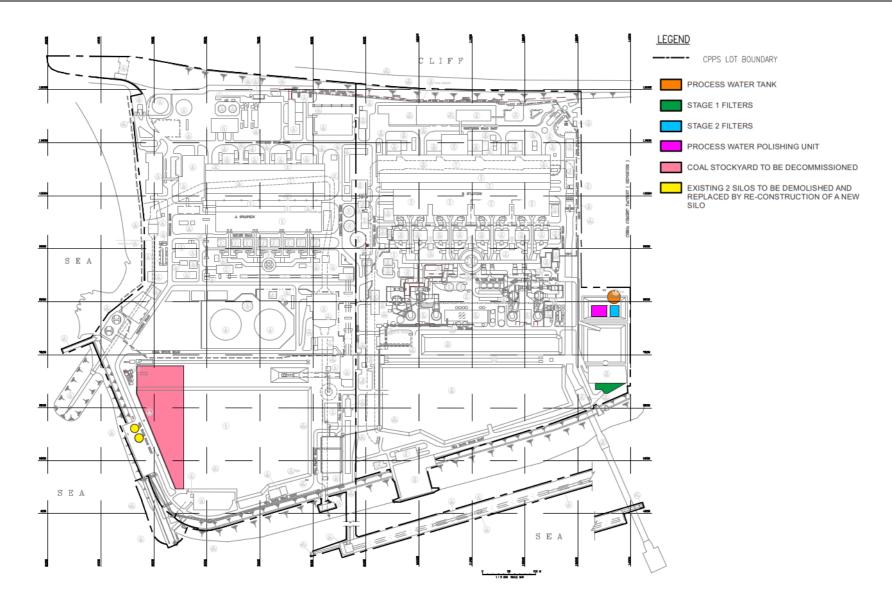
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#### 5 CONCLUSION

- 5.1.1 Two environmental site inspections were carried out for the Project in the reporting month of December 2020. No non-compliance was recorded during the site inspections. Based on the observations during the site inspections, the Contractor has implemented all the relevant environmental mitigation measures as recommended in the Project Profile (Register No. PP-468/2012).
- 5.1.1 Referring to the information provided by the Contractor, no complaint, notification of summons and successful prosecution was received in the reporting month.

### Appendix A

Location Plan of Key Project Components (2017 Scheme)



Source: Environmental Review Report of "Enhanced Ash Utilisation and Water Management Facilities at castle Peak Power Station", January 2018, Castle Peak Power Company Limited

Appendix B

Construction Programme

# J9589\_Construction of Ash Silo and the Associated E&M Plants & Equipment for Ash Handling (Master Programme Rev. 3 - September 2019)

ID Task Name	Start	Finish %	% Comp.	0606
			Feb         Mar         Apr         May         Jun           M1         M2         M3         M4         M5	Aug   Sep   Oct   Nov   Dec   Jan   Feb   Mar   Apr   May   Jun   Iud   M7   M8   M9   M10   M11   M12   M13   M14   M15   M16   M1
Contract Period	Thu 14/2/19	Fri 1/1/21		
2 Site Possession 3 Decim Submission and Statutory Decriptoments	Thu 14/2/19	Thu 14/2/19	000% ♦ 1442	
Demolition Works Submission	Tue 12/3/19	Fri 10/5/19	20%	
Design Submission of Demolition Amendment (if any)	Tue 12/3/19	Wed 10/4/19	50%	
8	Thu 11/4/19	Fri 10/5/19	50%	
Submission	Sat 11/5/19	Thu 6/8/20	%0	
BD Consent for Supercrimitation Works  RD Concent for Supercrimitation Works	Sat 11/5/19 Fr: 10/7/20	Thu 6/8/20	0,00	
DD Coliselli tol superstructure works  General Site Works	Thu 14/2/19	Mon 30/9/19	38%	
Site Setup	Thu 14/2/19	Wed 20/2/19	200%	
ction Condition Survey	Thu 14/2/19	Wed 27/2/19	2001	
UU Survey	Thu 14/2/19	Wed 27/2/19	100%	
Setting Out	Thu 14/2/19	Wed 20/2/19	100%	
itoring Instrument	Thu 21/2/19	Wed 6/3/19	1000	
	Thu 28/2/19	Wed 6/3/19	100%	
Erection of Chain Link Pencel Water Barriers	Thu //3/19	Wed 20/3/19	000%	
d associated sunnorting frames down to existing ground level	Thu 21/3/19	Wed 10/4/19	0000	
	Thu 28/3/19	Wed 10/4/19	2609	
11 & A2	Thu 11/4/19	Wed 24/4/19	100%	
	Thu 25/4/19	Mon 4/5/20	22%	
	Thu 25/4/19	Fri 21/2/20	49%	
d in Ash Silo	Thu 25/4/19	Sat 25/5/19	%000	
Demolition of Appendages  Exercise of Motor Confidence	Sun 26/5/19	Sat 1/6/19	0,001	
	Tue 12/11/10	Tue 10/11/10	200	
rame		Tue 10/12/19	%0	
ootings	Fri 13/12/19	Wed 25/12/19	%0	
	Fri 13/12/19	Mon 4/5/20	960	
d in Ash Silo	Wed 9/10/19	Wed 9/10/19	100%	01/6
Definition of Metal Scaffolding Frection of Metal Scaffolding	Fri 15/12/19	Fri 27/12/19	0.00	
	Sat 28/12/19	Fri 24/1/20	%0	
Frame	Sat 25/1/20	Fri 14/2/20	%0	
	Sat 15/2/20	Fri 28/2/20	260	
Demolition Works	Sat 29/2/20	Fri 3/4/20	920	•
Contract Commencement)	Sun 15/12/19	Sun 15/12/19	%0	◆ 15/12
Foundation Works	Mon 2/3/20	Sun 4/10/20	9.0	
nation Level of Raft Footing	Sat 4/4/20	Fri 17/4/20	%0	
	Sat 18/4/20	Thu 7/5/20	%0	
	Fri 8/5/20	Thu 14/5/20	960	
kebar Fixing	Fri 15/5/20	Thu 11/6/20	%0	
Concreting for Karl Footing Caleman and BD Advanced and BDA14 for Boundarion Works	Fri 12/6/20	Thu 2/1/20	% 0 0	
	Thu 6/8/20	Thu 6/8/20	0.00	
	Sun 5/1/20	Fri 1/1/21	%0	
caffolding	Sun 30/8/20	Sat 28/11/20	%0	
	Sun 5/1/20	Fri 3/7/20	%0	
On-site preparation works for subsequent installation of Silo & Hopper	Fri 3/7/20	Thu 6/8/20	%0	
Erection of Steel Supporting Frame & Staircases	Fri 7/8/20	Sun 20/9/20	%0	
	Mon 21/9/20	Mon 26/10/20	920	
	Mon 28/9/20	Wed 11/11/20	%0 %0	
novable Grating	Tue 2//10/20	Fri 13/11/20	%0 80	
57 Submission and BD Acknowledgement of BA13	Sat 28/11/20	Sun 27/12/20	0.00	
	Sat 28/11/20	Fri 11/12/20	%0	
	00/11/00	Cot 12/12/20	200	
	3at 20/11/20	Sat 12/12/20	0%0	Tomore To

# Appendix B2 Tentative Schedule for the Water Management Facilities Enhancement Works

Milestone	Works Description	Dates	Duration
1	Commencement of Contract	12 March 2020	N/A
2a	Construction of Plant House of Process Water Recycling Facility	By 458 days from commencement of Contract (13 June 2021)	458 days (15 months approx.)
2b	T&C Works of Process Water Recycling Facility	By 641 days from commencement of Contract (13 December 2021)	641 days (21 months approx.)
3a	Construction of Process Water Tank	By 458 days from commencement of Contract (13 June 2021)	458 days (15 months approx.)
3b	T&C Works of Process Water Tank	By 641 days from commencement of Contract (13 December 2021)	641 days (21 months approx.)
4a	Construction of FS Water Tank and T&C Works of FS Water Tank	By 337 days from commencement of Contract (12 February 2021)	337 days (11 months approx.)
4b	Construction of Modified Fire Service System for CPA	By 641 days from commencement of Contract (13 December 2021)	641 days (21 months approx.)
5a	Construction of Storm/ Process Water Management Facilities	By 337 days from commencement of Contract (12 February 2021)	337 days (11 months approx.)
5b	T&C Works of Storm/ Process Water Management Facilities	By 397 days from commencement of Contract (13 April 2021)	397 days (13 months approx.)
6	Handing over of the West Coal Store to the Contractor for construction	By 307 days from commencement of Contract (13 January 2021)	307 days (10 months approx.)
7	Works related to Partial De- commissioning of West Coal Store	By 641 days from commencement of Contract (13 December 2021)	641 days (21 months approx.)
8	Drainage Modification Works including the necessary T&C Works	By 458 days from commencement of Contract (13 June 2021)	458 days (15 months approx.)
9	Completion of All Related Works	By 458 days from commencement of Contract (13 June 2021)	458 days (15 months approx.)
10	Completion of all Contract works	By 641 days from commencement of Contract (13 December 2021)	641 days (21 months approx.)

# Appendix C Environmental Audit Records



Control Inspector Date: Time: PART Weath	act no: actor: Yee Hop Engineering Co. LTD  ction	-		Alex	Chan Chun Long		
PART	B: SITE AUDIT						
Cantin	an A. Water Ovelite	Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
1.01	on 1: Water Quality Is wetting of materials and surfaces avoided excess use of water?						
1.02	Are channels, earth bunds or sand bag barriers provided on-site to properly direct stormwater to desilting facilities?						
1.03	Are existing on-site silt removal facilities, channels and manholes, if any, maintained and the deposited silt and grit removed regularly, at the onset of and after each rainstorm and to ensure that these facilities are functioning properly at all times?		凶				
1.04	Are other manholes, if any, including any newly constructed ones adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system?						
1.05	Are open stockpiles of materials on site avoided or where unavoidable covered with tarpaulin or similar fabric during rainstorm? Are measures taken to prevent the washing away of construction materials, soil, silt or debris?		ď				
1.06	Is sewage arising from the construction workers on-site collected by temporary sanitary facilities where necessary, e.g. portable chemical toilets? Are portable toilets used coupled with tankering away services provided by a reputable collector?		$\triangle$				
1.07	Are all site drainages comply with the terms and conditions of a valid discharge licence issued by EPD?		$\Box$				
1.08	Are vehicle washing facilities drained into desilting facilities before discharge? Is water recycled on-site wherever possible? Is the wash water from wheel wash basins either reused for site watering or pumped to the on-site desilting facilities for treatment?	ď					
1.09	Are desilting facilities checked and the deposited silt and grit removed regularly to ensure that they are working properly at all times?						
1.10	Are all fuel tanks and chemical storage sited on sealed and bunded areas and provided with locks?						
1.11	Are storage areas surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank to prevent accidental spillage, if necessary?						
1.12	Are oil and grease removal facilities provided where appropriate, e.g. in area near plant workshop/maintenance area, if any?						
1.13	Is chemical waste arising from the site properly stored, handled, treated and disposed of in compliance with the requirements stipulated under the Waste Disposal (Chemical Waste) (General) Regulation?		$\square$				

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
Section	n 2: Air Quality						
2.01	Are all areas involving site clearance and excavation works sprayed with water before, during and after the operations to maintain the entire surface wet?		Ø				
2.02	Are materials dropped from restricting heights as far as practicable to minimize the fugitive dust arising from loading/unloading?						
2.03	Is hoarding of not less than 2.4m high from ground level along the major work site boundary erected, for the new process water tank and the new PFA storage silo, where appropriate?						
2.04	Are all vehicles washed to remove any dusty materials from the bodies and wheels immediately before leaving a work site?						
2.05	Is the load of the vehicle leaving a work site is carrying a load of dusty materials covered entirely by clean impervious sheeting to ensure that the dusty materials will not be released from the vehicle?		ď				
2.06	Is stockpile of dusty materials on-site covered entirely by impervious sheeting; and/or placed in an area sheltered on the top and 4 sides?		$\triangle$				
2.07	Is stockpile of dusty materials on-site sprayed with water immediately prior to any loading, unloading or transfer operation to dampen the dusty materials?		$\square$				
2.08	Is the travelling speed of vehicles within the work sites controlled to within 10 km/h to reduce the traffic induced dusty dispersion and re-suspension?						
2.09	Is unpaved haul road sprayed with water to maintain the entire road surface wet?		$\square$				
2.10	Is coal dust suppressed by water sprays using the spray guns and water browser as existing normal operations at the coal stockyard during the clearance of the coal pile?		$\triangle$				
Section	on 3: Noise						
3.01	Is unused equipment turned off?						
3.02	Is PME kept to a minimum and the parallel use of noisy equipment / machinery avoided?		$\square$				
3.03	Are all plant and equipment maintained regularly?						
3.04	Are material stockpiles and other on-site structures effectively used as noise barriers, where practicable?		d <sub>j</sub>				
3.05	Are purpose-built movable noise barrier, silencer and quiet plant used as necessary?		$\Box$				
Secti	on 4: Waste/Chemical Management		,				
4.01	Is reuse / recycling of all materials on-site investigated and exhausted prior to treatment / disposal off-site?						
4.02	Are all waste materials sorted on-site into inert and non-inert C&D materials, and where the materials recycled or reused, are they further segregated?		Ø				
4.03	Is trip-ticket system implemented in accordance with the contract and the requirements of WBTC 31/2004 "Trip Ticket System for Disposal of Construction and Demolition Material"?		Ø				
4.04	Is the Contractor registered as a Chemical Waste Producer if chemical wastes are generated on-site?						
4.05	Are licensed chemical waste collectors employed to collect any chemical waste generated at site?	$\Box$					
4.06	Are handling, storage, transportation and disposal of chemical wastes conducted in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes and A Guide to the Chemical Waste Control Scheme both published by EPD?		ď				
4.07	Are sufficient number of covered bins provided on-site for the containment of general refuse to prevent visual impacts and nuisances? Are these bins emptied daily and the collected waste disposed of to WENT Landfill?		6				
4.08	Is the site maintained clean and hygienic throughout the project works?						Page 2 of 3

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
4.09	Are toolbox talks provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling?	Ø					
Section	on 5: Others						
5.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits or at a convenient location for public's information at all times??						
5.02	Others:						
Rema	arks:						
	No specific observation was	ident	; fied	1	, +L	lis	in spection

Client ER IEC Contractor

(Alex Chan) (So Chur long)

#### **Environmental Audit Checklist** Enhanced Ash Utilisation and Water Management Facilities at Project: the Castle Peak Power Station (CPPS) Inspected by Contract no: Client: Yee Hop Engineering Co. LTD Contractor: ER: Inspection IEC: Alex Chan 1) ecember 2020 29 And Leuna Date: Contractor: So Chun Long :00 Time: PART A: **GENERAL INFORMATION** Weather Sunny Fine Cloudy Rainy Temperature: L5. 0 High Moderate Humidity: Low Wind: Strong Breeze Light Calm PART B: SITE AUDIT Not Follow Photo/ No Yes N/A Obs Remarks up Section 1: Water Quality 1 1.01 Is wetting of materials and surfaces avoided excess use of water? Are channels, earth bunds or sand bag barriers provided on-site to 7 1.02 properly direct stormwater to desilting facilities? Are existing on-site silt removal facilities, channels and manholes, if any, maintained and the deposited silt and grit removed regularly, at the onset / 1.03 of and after each rainstorm and to ensure that these facilities are functioning properly at all times? Are other manholes, if any, including any newly constructed ones 7 1.04 adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system? Are open stockpiles of materials on site avoided or where unavoidable covered with tarpaulin or similar fabric during rainstorm? Are measures $\overline{Z}$ 1.05 taken to prevent the washing away of construction materials, soil, silt or debris? Is sewage arising from the construction workers on-site collected by temporary sanitary facilities where necessary, e.g. portable chemical 1.06 toilets? Are portable toilets used coupled with tankering away services provided by a reputable collector? Are all site drainages comply with the terms and conditions of a valid 7 1.07 discharge licence issued by EPD? Are vehicle washing facilities drained into desilting facilities before discharge? Is water recycled on-site wherever possible? Is the wash water 1.08 from wheel wash basins either reused for site watering or pumped to the on-site desilting facilities for treatment? Are desilting facilities checked and the deposited silt and grit removed 1.09 regularly to ensure that they are working properly at all times? Are all fuel tanks and chemical storage sited on sealed and bunded areas / 1.10 and provided with locks? Are storage areas surrounded by bunds with a capacity equal to 110% of 1.11 the storage capacity of the largest tank to prevent accidental spillage, if Are oil and grease removal facilities provided where appropriate, e.g. in 1.12 7

area near plant workshop/maintenance area, if any?

Waste Disposal (Chemical Waste) (General) Regulation?

1.13

Is chemical waste arising from the site properly stored, handled, treated

and disposed of in compliance with the requirements stipulated under the

7



		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
Sectio	n 2: Air Quality						
2.01	Are all areas involving site clearance and excavation works sprayed with water before, during and after the operations to maintain the entire surface wet?		$\square$				
2.02	Are materials dropped from restricting heights as far as practicable to minimize the fugitive dust arising from loading/unloading?						
2.03	Is hoarding of not less than 2.4m high from ground level along the major work site boundary erected, for the new process water tank and the new PFA storage silo, where appropriate?						
2.04	Are all vehicles washed to remove any dusty materials from the bodies and wheels immediately before leaving a work site?		7				
2.05	Is the load of the vehicle leaving a work site is carrying a load of dusty materials covered entirely by clean impervious sheeting to ensure that the dusty materials will not be released from the vehicle?						
2.06	Is stockpile of dusty materials on-site covered entirely by impervious sheeting; and/or placed in an area sheltered on the top and 4 sides?						
2.07	Is stockpile of dusty materials on-site sprayed with water immediately prior to any loading, unloading or transfer operation to dampen the dusty materials?		Ď				
2.08	Is the travelling speed of vehicles within the work sites controlled to within 10 km/h to reduce the traffic induced dusty dispersion and re-suspension?		$\angle$				
2.09	Is unpaved haul road sprayed with water to maintain the entire road surface wet?						
2.10	Is coal dust suppressed by water sprays using the spray guns and water browser as existing normal operations at the coal stockyard during the clearance of the coal pile?		7				
Section	on 3: Noise		,				
3.01	Is unused equipment turned off?						
3.02	Is PME kept to a minimum and the parallel use of noisy equipment / machinery avoided?						
3.03	Are all plant and equipment maintained regularly?						
3.04	Are material stockpiles and other on-site structures effectively used as noise barriers, where practicable?						
3.05	Are purpose-built movable noise barrier, silencer and quiet plant used as necessary?						
Section	on 4: Waste/Chemical Management						
4.01	Is reuse / recycling of all materials on-site investigated and exhausted prior to treatment / disposal off-site?						
4.02	Are all waste materials sorted on-site into inert and non-inert C&D materials, and where the materials recycled or reused, are they further segregated?		ഥ				
4.03	Is trip-ticket system implemented in accordance with the contract and the requirements of WBTC 31/2004 "Trip Ticket System for Disposal of Construction and Demolition Material"?		₫				
4.04	Is the Contractor registered as a Chemical Waste Producer if chemical wastes are generated on-site?	$\square$					
4.05	Are licensed chemical waste collectors employed to collect any chemical waste generated at site?	$\Box$					
4.06	Are handling, storage, transportation and disposal of chemical wastes conducted in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes and A Guide to the Chemical Waste Control Scheme both published by EPD?		Ø				
4.07	Are sufficient number of covered bins provided on-site for the containment of general refuse to prevent visual impacts and nuisances? Are these bins emptied daily and the collected waste disposed of to WENT Landfill?						
4.08	Is the site maintained clean and hygienic throughout the project works?		$\Box$				Page 2 of 3

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
4.09	Are toolbox talks provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling?		Ø				
Section	on 5: Others						
5.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits or at a convenient location for public's information at all times??						-
5.02	Others: live Environmental Permit Posted at Site entrance?				ď		Reminder

Remarks:

The Contractor was reminded to replace the damaged environmental Permit

Client	ER	IEC	Contractor
	/	Su	
(	( )	(Alex Chan)	Andy Leuny

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#### **Environmental Audit Checklist** Enhanced Ash Utilisation and Water Management Facilities at the Castle Peak Power Station (CPPS) Project: Inspected by Contract no: Client: Contractor: Guangxi Electric Power Design Institute Co., Ltd ER: Inspection IEC: Alex Chan December Lo7 10 Date: Lu You Fang Contractor: 15:00 Time: PART A: GENERAL INFORMATION Weather: Sunny Fine Cloudy Rainy Temperature: Humidity: High Moderate Low Wind: Strong Breeze Calm Light PART B: SITE AUDIT Not Follow Photo/ Yes No N/A Obs. Remarks up Section 1: Water Quality Is wetting of materials and surfaces avoided excess use of water? Are channels, earth bunds or sand bag barriers provided on-site to 1.02 properly direct stormwater to desilting facilities? Are existing on-site silt removal facilities, channels and manholes, if any, maintained and the deposited silt and grit removed regularly, at the onset 1.03 7 of and after each rainstorm and to ensure that these facilities are functioning properly at all times? Are other manholes, if any, including any newly constructed ones 7 1.04 adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system? Are open stockpiles of materials on site avoided or where unavoidable covered with tarpaulin or similar fabric during rainstorm? Are measures 1.05 taken to prevent the washing away of construction materials, soil, silt or Is sewage arising from the construction workers on-site collected by temporary sanitary facilities where necessary, e.g. portable chemical $\Box$ 1.06 toilets? Are portable toilets used coupled with tankering away services provided by a reputable collector? Are all site drainages comply with the terms and conditions of a valid 1.07 discharge licence issued by EPD? Are vehicle washing facilities drained into desilting facilities before discharge? Is water recycled on-site wherever possible? Is the wash water 1.08 from wheel wash basins either reused for site watering or pumped to the on-site desilting facilities for treatment? Are desilting facilities checked and the deposited silt and grit removed 1.09 regularly to ensure that they are working properly at all times? Are all fuel tanks and chemical storage sited on sealed and bunded areas 1 10 and provided with locks? Are storage areas surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank to prevent accidental spillage, if 1.11 Are oil and grease removal facilities provided where appropriate, e.g. in 7 1.12 area near plant workshop/maintenance area, if any? Is chemical waste arising from the site properly stored, handled, treated 1.13 and disposed of in compliance with the requirements stipulated under the

Waste Disposal (Chemical Waste) (General) Regulation?

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
Section	on 2: Air Quality						
2.01	Are all areas involving site clearance and excavation works sprayed with water before, during and after the operations to maintain the entire surface wet?						Observation &
2.02	Are materials dropped from restricting heights as far as practicable to minimize the fugitive dust arising from loading/unloading?		Ø				
2.03	Is hoarding of not less than 2.4m high from ground level along the major work site boundary erected, for the new process water tank and the new PFA storage silo, where appropriate?		Ø				
2.04	Are all vehicles washed to remove any dusty materials from the bodies and wheels immediately before leaving a work site?						
2.05	Is the load of the vehicle leaving a work site is carrying a load of dusty materials covered entirely by clean impervious sheeting to ensure that the dusty materials will not be released from the vehicle?		口				,
2.06	Is stockpile of dusty materials on-site covered entirely by impervious sheeting; and/or placed in an area sheltered on the top and 4 sides?		7				
2.07	Is stockpile of dusty materials on-site sprayed with water immediately prior to any loading, unloading or transfer operation to dampen the dusty materials?		厶				
2.08	Is the travelling speed of vehicles within the work sites controlled to within 10 km/h to reduce the traffic induced dusty dispersion and re-suspension?		$\square$				
2.09	Is unpaved haul road sprayed with water to maintain the entire road surface wet?		Ø				
2.10	Is coal dust suppressed by water sprays using the spray guns and water browser as existing normal operations at the coal stockyard during the clearance of the coal pile?		$\Box$				
Section	on 3: Noise		,				
3.01	Is unused equipment turned off?		$\square$				
3.02	Is PME kept to a minimum and the parallel use of noisy equipment / machinery avoided?						
3.03	Are all plant and equipment maintained regularly?						( <del></del>
3.04	Are material stockpiles and other on-site structures effectively used as noise barriers, where practicable?		$\square$				
3.05	Are purpose-built movable noise barrier, silencer and quiet plant used as necessary?						
Section	on 4: Waste/Chemical Management						
4.01	Is reuse / recycling of all materials on-site investigated and exhausted prior to treatment / disposal off-site?						
4.02	Are all waste materials sorted on-site into inert and non-inert C&D materials, and where the materials recycled or reused, are they further segregated?						
4.03	Is trip-ticket system implemented in accordance with the contract and the requirements of WBTC 31/2004 "Trip Ticket System for Disposal of Construction and Demolition Material"?		$\square$				
4.04	Is the Contractor registered as a Chemical Waste Producer if chemical wastes are generated on-site?		$\square$				
4.05	Are licensed chemical waste collectors employed to collect any chemical waste generated at site?						
4.06	Are handling, storage, transportation and disposal of chemical wastes conducted in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes and A Guide to the Chemical Waste Control Scheme both published by EPD?		₫				
4.07	Are sufficient number of covered bins provided on-site for the containment of general refuse to prevent visual impacts and nuisances? Are these bins emptied daily and the collected waste disposed of to WENT Landfill?						Reminder 1
4.08	Is the site maintained clean and hygienic throughout the project works?						Page 2 of 3

Env	ironmental Audit Checklist						
		Not Obs.	Yes	No	Follow	N/A	Photo/ Remarks
4.09	Are toolbox talks provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling?						
Section	on 5: Others						
5.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits or at a convenient location for public's information at all times??						
5.02	Others:					$\square$	
Rema	arks:			70			
_	Observation observed  ne expose area was du  was advised to provide  dust suppression.	t.		the ing		su tonce	
	The Contractor was reminded waste collection area for e	in havie	to	f, the	ence was to	e M	the angement

Client		ER	IEC	Contractor
	)	( )	( Alex Cham)	PARS )

Conti	ract no:  ractor:  Guangxi Electric Power Design Institute Co., Ltd  ection  19 29 December 2020  10:00	CI	spected b lient: R: C: ontractor:	Ale	  x Chan <del>You Fang-</del>	 Yu Wgai	Ching Das	- 
Weath		Rainy						
Temp	perature: L 7. 0 °C							
Humid								
Wind:	Strong Breeze Light C	Calm						_
PART	TB: SITE AUDIT							
		Not Obs	YAC	No	Follow	N/A	Photo/ Remarks	
Section	on 1: Water Quality		,					7
1.01	Is wetting of materials and surfaces avoided excess use of water?		7				70	
1.02	Are channels, earth bunds or sand bag barriers provided on-site to properly direct stormwater to desilting facilities?							
1.03	Are existing on-site silt removal facilities, channels and manholes, if any, maintained and the deposited silt and grit removed regularly, at the onset of and after each rainstorm and to ensure that these facilities are functioning properly at all times?		Ø					
1.04	Are other manholes, if any, including any newly constructed ones adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system?							
1.05	Are open stockpiles of materials on site avoided or where unavoidable covered with tarpaulin or similar fabric during rainstorm? Are measures taken to prevent the washing away of construction materials, soil, silt or debris?		$\square$					
1.06	Is sewage arising from the construction workers on-site collected by temporary sanitary facilities where necessary, e.g. portable chemical toilets? Are portable toilets used coupled with tankering away services provided by a reputable collector?							-
1.07	Are all site drainages comply with the terms and conditions of a valid discharge licence issued by EPD?							-
1.08	Are vehicle washing facilities drained into desilting facilities before discharge? Is water recycled on-site wherever possible? Is the wash water from wheel wash basins either reused for site watering or pumped to the on-site desilting facilities for treatment?		$\Box$					
1.09	Are desilting facilities checked and the deposited silt and grit removed regularly to ensure that they are working properly at all times?		$\Box$					•
1.10	Are all fuel tanks and chemical storage sited on sealed and bunded areas and provided with locks?		$\angle$					•
1.11	Are storage areas surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank to prevent accidental spillage, if necessary?							
1.12	Are oil and grease removal facilities provided where appropriate, e.g. in area near plant workshop/maintenance area, if any?		$\square$					•0
1.13	Is chemical waste arising from the site properly stored, handled, treated and disposed of in compliance with the requirements stipulated under the Waste Disposal (Chemical Waste) (General) Regulation?		$\Box$					42



		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
Section	n 2: Air Quality						
2.01	Are all areas involving site clearance and excavation works sprayed with water before, during and after the operations to maintain the entire surface wet?						
2.02	Are materials dropped from restricting heights as far as practicable to minimize the fugitive dust arising from loading/unloading?		$\square$				en.
2.03	Is hoarding of not less than 2.4m high from ground level along the major work site boundary erected, for the new process water tank and the new PFA storage silo, where appropriate?		$\square$				
2.04	Are all vehicles washed to remove any dusty materials from the bodies and wheels immediately before leaving a work site?		$\square$				
2.05	Is the load of the vehicle leaving a work site is carrying a load of dusty materials covered entirely by clean impervious sheeting to ensure that the dusty materials will not be released from the vehicle?						
2.06	Is stockpile of dusty materials on-site covered entirely by impervious sheeting; and/or placed in an area sheltered on the top and 4 sides?		$\square$				
2.07	Is stockpile of dusty materials on-site sprayed with water immediately prior to any loading, unloading or transfer operation to dampen the dusty materials?		Ø				
2.08	Is the travelling speed of vehicles within the work sites controlled to within 10 km/h to reduce the traffic induced dusty dispersion and re-suspension?						
2.09	Is unpaved haul road sprayed with water to maintain the entire road surface wet?						
2.10	Is coal dust suppressed by water sprays using the spray guns and water browser as existing normal operations at the coal stockyard during the clearance of the coal pile?		$\square$				
Section	on 3: Noise						
3.01	Is unused equipment turned off?		1				
3.02	Is PME kept to a minimum and the parallel use of noisy equipment / machinery avoided?		$\square$				
3.03	Are all plant and equipment maintained regularly?						20 10 10 10 10 10 10 10 10 10 10 10 10 10
3.04	Are material stockpiles and other on-site structures effectively used as noise barriers, where practicable?		$\square$				
3.05	Are purpose-built movable noise barrier, silencer and quiet plant used as necessary?						
Section	on 4: Waste/Chemical Management		76				
4.01	Is reuse / recycling of all materials on-site investigated and exhausted prior to treatment / disposal off-site?						
4.02	Are all waste materials sorted on-site into inert and non-inert C&D materials, and where the materials recycled or reused, are they further segregated?						
4.03	Is trip-ticket system implemented in accordance with the contract and the requirements of WBTC 31/2004 "Trip Ticket System for Disposal of Construction and Demolition Material"?		Ø				
4.04	Is the Contractor registered as a Chemical Waste Producer if chemical wastes are generated on-site?						
4.05	Are licensed chemical waste collectors employed to collect any chemical waste generated at site?						
4.06	Are handling, storage, transportation and disposal of chemical wastes conducted in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes and A Guide to the Chemical Waste Control Scheme both published by EPD?		Ø				0
4.07	Are sufficient number of covered bins provided on-site for the containment of general refuse to prevent visual impacts and nuisances? Are these bins emptied daily and the collected waste disposed of to WENT Landfill?						
4.08	Is the site maintained clean and hygienic throughout the project works?						Page 2 of 3

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
4.09	Are toolbox talks provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling?		Ø				
Section	on 5: Others						
5.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits or at a convenient location for public's information at all times??		Ø				
5.02	Others:		Ø				

Remarks:

No specific observation was identified in this inspection

Client ER IEC Contractor

( ) ( Alex Chan ) (Yn Ngai Ching) Davie)

## Appendix D

**Summary of Implementation Status of Environmental Mitigation Measure** 

# Appendix D1 Implementation Status of Recommended Mitigation Measures during Construction Stage – Ash Silo Construction Works

Recommended Mitigation Measures	Implementation Status
Measures for Construction Activities involving Excavations, Loading and Unloading of Soils	
<ul> <li>All areas involving site clearance and excavations works will be sprayed with water before, during and after the operations to maintain the entire surface wet;</li> </ul>	Y
<ul> <li>Restricting heights from which materials are to be dropped, as far as practicable to minimise the fugitive dust arising from unloading/ loading;</li> </ul>	Y
• Erection of hoarding of not less than 2.4 m high from ground level along the major work site boundary (the new process water tank and the new PFA storage silo), where appropriate;	N/A
<ul> <li>Immediately before leaving a work site, all vehicles shall be washed to remove any dusty materials from the bodies and wheels. However, wetting of materials and surfaces should avoid excessive use of water;</li> </ul>	Y
<ul> <li>Where a vehicle leaving a work site is carrying a load of dusty materials, the load shall be covered entirely by clean impervious sheeting to ensure that the dusty materials will not be released from the vehicle;</li> </ul>	Y
<ul> <li>Any stockpile of dusty materials on-site will be covered entirely by impervious sheeting; and/or placed in an area sheltered on the top and 4 sides. They should also be sprayed with water immediately prior to any loading, unloading or transfer operation to dampen the dusty materials;</li> </ul>	Y
<ul> <li>To reduce the traffic induced dust dispersion and re-suspension, the travelling speed of vehicles within the work sites should be controlled to within 10 km/h;</li> </ul>	Y
Any unpaved haul road shall be sprayed with water so as to maintain the entire road surface wet.	Υ
Measures for Partial Decommissioning of the West Coal Stockyard	
• During the clearance of the coal pile, coal dust will be suppressed by water sprays using the spray guns and water browser as existing normal operations at the coal stockyard.	N/A
Good Site Practice	
<ul> <li>Unused equipment should be turned off. PME will be kept to a minimum and the parallel use of noisy equipment/ machinery will be avoided;</li> </ul>	Y
Regular maintenance of all plant and equipment;	Υ
• Material stockpiles and other on-site structures will be effectively used as noise barriers, where practicable;	N/A
Use of purpose-built movable noise barrier, silencer and quiet plant as necessary.	N/A
_	Measures for Construction Activities involving Excavations, Loading and Unloading of Soils  All areas involving site clearance and excavations works will be sprayed with water before, during and after the operations to maintain the entire surface wet;  Restricting heights from which materials are to be dropped, as far as practicable to minimise the fugitive dust arising from unloading/ loading;  Frection of hoarding of not less than 2.4 m high from ground level along the major work site boundary (the new process water tank and the new PFA storage silo), where appropriate;  Immediately before leaving a work site, all vehicles shall be washed to remove any dusty materials from the bodies and wheels. However, wetting of materials and surfaces should avoid excessive use of water;  Where a vehicle leaving a work site is carrying a load of dusty materials, the load shall be covered entirely by clean impervious sheeting to ensure that the dusty materials will not be released from the vehicle;  Any stockpile of dusty materials on-site will be covered entirely by impervious sheeting; and/or placed in an area sheltered on the top and 4 sides. They should also be sprayed with water immediately prior to any loading, unloading or transfer operation to dampen the dusty materials;  To reduce the traffic induced dust dispersion and re-suspension, the travelling speed of vehicles within the work sites should be controlled to within 10 km/h;  Any unpaved haul road shall be sprayed with water so as to maintain the entire road surface wet.  Measures for Partial Decommissioning of the West Coal Stockyard  During the clearance of the coal pile, coal dust will be suppressed by water sprays using the spray guns and water browser as existing normal operations at the coal stockyard.  Good Site Practice  Unused equipment should be turned off. PME will be kept to a minimum and the parallel use of noisy equipment/ machinery will be avoided;  Regular maintenance of all plant and equipment;

Environmental Aspect	Recommended Mitigation Measures	Implementation Status
Water Quality	Measures for Construction Site Runoff and Discharge	
(Section 4.3 of Project Profile)	<ul> <li>Surface runoff from the affected works areas are to be directed towards desilting facilities before discharging into the stormwater drainage;</li> </ul>	N/A
	<ul> <li>Channels, earth bunds or sand bag barriers will be provided on-site to properly direct stormwater to the above- mentioned facilities;</li> </ul>	Y
	<ul> <li>Existing on-site silt removal facilities, channels and manholes, if any, will be maintained and the deposited silt and grit will be removed regularly, at the onset of and after each rainstorm and to ensure that these facilities are functioning properly at all times;</li> </ul>	Y
	• Other manholes, if any, including any newly constructed ones will be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system;	Y
	<ul> <li>Open stockpiles of materials on site will be avoided or where unavoidable covered with tarpaulin or similar fabric during rainstorms. Measures will be taken to prevent the washing away of construction materials, soil, silt or debris;</li> </ul>	N/A
	• Sewage arising from the construction workers on-site will be collected by temporary sanitary facilities where necessary e.g. portable chemical toilets. Portable toilets will be used coupled with tankering away services provided by a reputable collector;	N/A
	• All site discharges will comply with the terms and conditions of a valid discharge licence issued by EPD;	N/A
	<ul> <li>Vehicle washing facilities will be drained into desilting facilities before discharge. Water will be recycled on-site wherever possible. It is suggested that the wash water from wheel wash basins are either reused for site watering or pumped to the on-site desilting facilities for treatment;</li> </ul>	N/A
	• Desilting facilities will be checked and the deposited silt and grit will be removed regularly to ensure that they are working properly at all times.	Y
	Protection against Accidental Spillage	
	<ul> <li>The works may occasionally involve the handling of fuel and generates a small amount of chemical wastes. It must be ensured that all fuel tanks and chemical storage are sited on sealed and bunded areas and provided with locks;</li> </ul>	N/A
	• If necessary, the storage areas will be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank to prevent accidentally spillage;	N/A
	<ul> <li>Oil and grease removal facilities will be provided where appropriate, for example, in area near plant workshop/ maintenance areas, if any;</li> </ul>	Y
	<ul> <li>Chemical waste arising from the site will be properly stored, handled, treated and disposed of in compliance with the requirements stipulated under the Waste Disposal (Chemical Waste) (General) Regulation.</li> </ul>	N/A

Environmental Aspect	Recommended Mitigation Measures	Implementation Status
Waste	Waste Management Plan (WMP)	
Management Implications (Section 4.4 of the Project Profile)	The main contractor of the Project shall prepare a <i>Waste Management Plan (WMP)</i> , which will become part of the <i>Environmental Management Plan (EMP)</i> , with reference to the requirements set out in the <i>ETWB TCW No. 19/2005</i> , <i>Waste Management on Construction Sites</i> and the Practice Note for Authorized Persons and Registered Structural Engineers, e.g. <i>Practice Note No. 243 – Construction and Demolition Waste</i> . The WMP shall include monthly Waste Flow Tables (WFT) which indicate the amounts of waste generated, recycled and disposed of (including final disposal site), and it should be updated regularly.	Y
	General waste management measures during Construction	
	• The reuse/recycling of all materials on-site shall be investigated and exhausted prior to treatment/ disposal off-site;	Y
	<ul> <li>All waste materials shall be sorted on-site into inert and non-inert C&amp;D materials, and where the materials can be recycled or reused, they shall be further segregated. Inert material, or public fill shall be disposed of at Fill Bank at Tuen Mun Area 38 whilst non-inert materials or construction waste shall be disposed of at the WENT Landfill.</li> </ul>	Y
	• The contractor shall be responsible for identifying what materials can be recycled/ reused, whether on-site or off-site. In the event of the latter, the contractor shall arrange for the collection of the recyclable materials.	Y
	• In order to monitor the disposal of public fill and construction waste at public filling facilities and landfills, and control fly-tipping, a trip-ticket system shall be implemented by the Contractor, in accordance with the contract and the requirements of WBTC 31/2004 "Trip Ticket System for Disposal of Construction and Demolition Material";	Y
	• Under the Waste Disposal (Chemical Waste) (General) Regulation, the Contractor shall register as a Chemical Waste Producer if chemical wastes such as spent lubricants and paints are generated on-site. Only licensed chemical waste collectors shall be employed to collect any chemical waste generated at site. The handling, storage, transportation and disposal of chemical wastes shall be conducted in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes and A Guide to the Chemical Waste Control Scheme both published by EPD;	N/A
	<ul> <li>A sufficient number of covered bins shall be provided on-site for the containment of general refuse to prevent visual impacts and nuisances. These bins shall be emptied daily and the collected waste disposed of to the WENT Landfill. Further to the issue of ETWB TCW No. 6/2002A, Enhanced Specification for Site Cleanliness and Tidiness, the contractor will be required to maintain a clean and hygienic site throughout the project works;</li> </ul>	Y
	• Toolbox talks should be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling.	N/A
Land Contamination (Section 4.5 of Project Profile)	Based on the recent SI result, signs of land contamination were not identified and no mitigation measures are considered necessary. However, the situation will be reconfirmed after the SI work at the coal stockyard proposed in the CAP is completed. The SI results will be documented in a Contamination Assessment Report (CAR). If contamination is identified, the necessary remediation method will be proposed and documented in the Remediation Action Plan (RAP) for EPD's approval. If remediation is necessary, the CAPCO will clean up the contaminated land according to the approved RAP, and a Remediation Report (RR) will be prepared to demonstrate that the concerned area(s) have been cleaned up to the	N/A

Environmental Aspect	Recommended Mitigation Measures	Implementation Status
	relevant RBRG's standards. The RR will be submitted to EPD for agreement prior to the commencement of any development or redevelopment works.	
Landscape & Visual (Section 4.7 of Project Profile)	No mitigation measures for landscape and visual impacts are considered necessary, as no adverse landscape and visual impacts are identified during the construction and operation of the Project.	N/A

#### Notes:

- Y Compliance of Mitigation Measures
  N Non-compliance of Mitigation Measures
  D Deficiency of Mitigation Measures
  N/A Not Applicable in Reporting Period

- Non-compliance of Mitigation Measures but rectified by the Contractor
- Deficiency of Mitigation Measures but rectified by the Contractor

# Appendix D2 Implementation Status of Recommended Mitigation Measures during Construction Stage - Water Management Facilities Enhancement Works

Environmental Aspect	Recommended Mitigation Measures	Implementation Status
Air Quality	Measures for Construction Activities involving Excavations, Loading and Unloading of Soils	
(Section 4.1 of Project Profile)	<ul> <li>All areas involving site clearance and excavations works will be sprayed with water before, during and after the operations to maintain the entire surface wet;</li> </ul>	<b>♦</b>
	<ul> <li>Restricting heights from which materials are to be dropped, as far as practicable to minimise the fugitive dust arising from unloading/ loading;</li> </ul>	Y
	• Erection of hoarding of not less than 2.4 m high from ground level along the major work site boundary (the new process water tank and the new PFA storage silo), where appropriate;	Y
	<ul> <li>Immediately before leaving a work site, all vehicles shall be washed to remove any dusty materials from the bodies and wheels. However, wetting of materials and surfaces should avoid excessive use of water;</li> </ul>	Y
	<ul> <li>Where a vehicle leaving a work site is carrying a load of dusty materials, the load shall be covered entirely by clean impervious sheeting to ensure that the dusty materials will not be released from the vehicle;</li> </ul>	Y
	<ul> <li>Any stockpile of dusty materials on-site will be covered entirely by impervious sheeting; and/or placed in an area sheltered on the top and 4 sides. They should also be sprayed with water immediately prior to any loading, unloading or transfer operation to dampen the dusty materials;</li> </ul>	Y
	<ul> <li>To reduce the traffic induced dust dispersion and re-suspension, the travelling speed of vehicles within the work sites should be controlled to within 10 km/h;</li> </ul>	Y
	Any unpaved haul road shall be sprayed with water so as to maintain the entire road surface wet.	Y
	Measures for Partial Decommissioning of the West Coal Stockyard	
	• During the clearance of the coal pile, coal dust will be suppressed by water sprays using the spray guns and water browser as existing normal operations at the coal stockyard.	N/A
Noise	Good Site Practice	
(Section 4.2 of Project Profile)	<ul> <li>Unused equipment should be turned off. PME will be kept to a minimum and the parallel use of noisy equipment/ machinery will be avoided;</li> </ul>	Y
	Regular maintenance of all plant and equipment;	Y
	• Material stockpiles and other on-site structures will be effectively used as noise barriers, where practicable;	N/A
	• Use of purpose-built movable noise barrier, silencer and quiet plant as necessary.	N/A

Environmental Aspect	Recommended Mitigation Measures	Implementation Status
Water Quality	Measures for Construction Site Runoff and Discharge	
(Section 4.3 of Project Profile)	<ul> <li>Surface runoff from the affected works areas are to be directed towards desilting facilities before discharging into the stormwater drainage;</li> </ul>	Y
	<ul> <li>Channels, earth bunds or sand bag barriers will be provided on-site to properly direct stormwater to the above- mentioned facilities;</li> </ul>	Y
	<ul> <li>Existing on-site silt removal facilities, channels and manholes, if any, will be maintained and the deposited silt and grit will be removed regularly, at the onset of and after each rainstorm and to ensure that these facilities are functioning properly at all times;</li> </ul>	Y
	• Other manholes, if any, including any newly constructed ones will be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system;	Y
	<ul> <li>Open stockpiles of materials on site will be avoided or where unavoidable covered with tarpaulin or similar fabric during rainstorms. Measures will be taken to prevent the washing away of construction materials, soil, silt or debris;</li> </ul>	N/A
	• Sewage arising from the construction workers on-site will be collected by temporary sanitary facilities where necessary e.g. portable chemical toilets. Portable toilets will be used coupled with tankering away services provided by a reputable collector;	N/A
	• All site discharges will comply with the terms and conditions of a valid discharge licence issued by EPD;	Y
	<ul> <li>Vehicle washing facilities will be drained into desilting facilities before discharge. Water will be recycled on-site wherever possible. It is suggested that the wash water from wheel wash basins are either reused for site watering or pumped to the on-site desilting facilities for treatment;</li> </ul>	Y
	• Desilting facilities will be checked and the deposited silt and grit will be removed regularly to ensure that they are working properly at all times.	Y
	Protection against Accidental Spillage	
	<ul> <li>The works may occasionally involve the handling of fuel and generates a small amount of chemical wastes. It must be ensured that all fuel tanks and chemical storage are sited on sealed and bunded areas and provided with locks;</li> </ul>	Y
	• If necessary, the storage areas will be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank to prevent accidentally spillage;	N/A
	<ul> <li>Oil and grease removal facilities will be provided where appropriate, for example, in area near plant workshop/ maintenance areas, if any;</li> </ul>	Y
	• Chemical waste arising from the site will be properly stored, handled, treated and disposed of in compliance with the requirements stipulated under the Waste Disposal (Chemical Waste) (General) Regulation.	N/A

Environmental Aspect	Recommended Mitigation Measures	Implementation Status
Waste	Waste Management Plan (WMP)	
Management Implications (Section 4.4 of the Project Profile)	The main contractor of the Project shall prepare a <i>Waste Management Plan (WMP)</i> , which will become part of the <i>Environmental Management Plan (EMP)</i> , with reference to the requirements set out in the <i>ETWB TCW No. 19/2005</i> , <i>Waste Management on Construction Sites</i> and the Practice Note for Authorized Persons and Registered Structural Engineers, e.g. <i>Practice Note No. 243 – Construction and Demolition Waste</i> . The WMP shall include monthly Waste Flow Tables (WFT) which indicate the amounts of waste generated, recycled and disposed of (including final disposal site), and it should be updated regularly.	Y
	General waste management measures during Construction	
	• The reuse/recycling of all materials on-site shall be investigated and exhausted prior to treatment/ disposal off-site;	Υ
	<ul> <li>All waste materials shall be sorted on-site into inert and non-inert C&amp;D materials, and where the materials can be recycled or reused, they shall be further segregated. Inert material, or public fill shall be disposed of at Fill Bank at Tuen Mun Area 38 whilst non-inert materials or construction waste shall be disposed of at the WENT Landfill.</li> </ul>	Y
	• The contractor shall be responsible for identifying what materials can be recycled/ reused, whether on-site or off-site. In the event of the latter, the contractor shall arrange for the collection of the recyclable materials.	Y
	• In order to monitor the disposal of public fill and construction waste at public filling facilities and landfills, and control fly-tipping, a trip-ticket system shall be implemented by the Contractor, in accordance with the contract and the requirements of WBTC 31/2004 "Trip Ticket System for Disposal of Construction and Demolition Material";	Y
	• Under the Waste Disposal (Chemical Waste) (General) Regulation, the Contractor shall register as a Chemical Waste Producer if chemical wastes such as spent lubricants and paints are generated on-site. Only licensed chemical waste collectors shall be employed to collect any chemical waste generated at site. The handling, storage, transportation and disposal of chemical wastes shall be conducted in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes and A Guide to the Chemical Waste Control Scheme both published by EPD;	Y
	<ul> <li>A sufficient number of covered bins shall be provided on-site for the containment of general refuse to prevent visual impacts and nuisances. These bins shall be emptied daily and the collected waste disposed of to the WENT Landfill. Further to the issue of ETWB TCW No. 6/2002A, Enhanced Specification for Site Cleanliness and Tidiness, the contractor will be required to maintain a clean and hygienic site throughout the project works;</li> </ul>	<b>♦</b>
	• Toolbox talks should be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling.	N/A
Land Contamination (Section 4.5 of Project Profile)	Based on the recent SI result, signs of land contamination were not identified and no mitigation measures are considered necessary. However, the situation will be reconfirmed after the SI work at the coal stockyard proposed in the CAP is completed. The SI results will be documented in a Contamination Assessment Report (CAR). If contamination is identified, the necessary remediation method will be proposed and documented in the Remediation Action Plan (RAP) for EPD's approval. If remediation is necessary, the CAPCO will clean up the contaminated land according to the approved RAP, and a Remediation Report (RR) will be prepared to demonstrate that the concerned area(s) have been cleaned up to the	N/A

Environmental Aspect	Recommended Mitigation Measures	Implementation Status
	relevant RBRG's standards. The RR will be submitted to EPD for agreement prior to the commencement of any development or redevelopment works.	
Landscape & Visual (Section 4.7 of Project Profile)	No mitigation measures for landscape and visual impacts are considered necessary, as no adverse landscape and visual impacts are identified during the construction and operation of the Project.	N/A

#### Notes:

- Y Compliance of Mitigation Measures
  N Non-compliance of Mitigation Measures
  D Deficiency of Mitigation Measures
  N/A Not Applicable in Reporting Period

- Non-compliance of Mitigation Measures but rectified by the Contractor
- Deficiency of Mitigation Measures but rectified by the Contractor