Contract No. EP/SP/66 Integrated Waste Mana	/12 gement Facilities, Phase 1	Keppel Seghers – Zhen Hua Joint Venture
Appendix N	Exceedance Report	

# Statistical Summary of Exceedances in the Reporting Period

	Water Quality (Regular DCM)					
Location	Action Level	Limit Level	Total			
B1	1	0	1			
B2	1	0	1			
В3	1	1	2			
B4	0	2	2			
CR1	0	0	0			
CR2	1	0	1			
F1A	0	1	1			
H1	0	0	0			
<b>S</b> 1	0	1	1			
S2A	1	0	1			
<b>S</b> 3	0	0	0			
M1	0	0	0			

	Noise (	Day Time)					
Location	Location Action Level Limit Level						
M1 / N_S1	0	0	0				
M2 / N_S2	0	0	0				
M3 / N_S3	0	0	0				
	Noise (E	vening Time)					
Location	Action Level	Action Level Limit Level To					
M1 / N_S1	0	0	0				
M2 / N_S2	0	0	0				
M3 / N_S3	0	0	0				
	Noise (I	Night Time)					
Location	Action Level	Limit Level	Total				
M1 / N_S1	0	0	0				
M2 / N_S2	0	0	0				
M3 / N_S3	0	0	0				

## **Incident Report on Action Level or Limit Level Non-compliance**

Project	Integrated Waste Management Facilities, Phase 1						
Date	06 Sep 2019 (Lab result received on 11 Sep 2019)						
Time	10:53 – 14:23 (Mid-Flood)						
	Mid-Flood						
Monitoring Location	B3 & CR2						
	+ B1 • S1-	PROPOSED OUTFALL +  4 FROPOSED 132KV SUBMARINE CABLES  83  H1  SHEK KWU CHAU  CR2  83  CR1  PROPOSED RECLAIMED AREA FOR THE IMMF	Key A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY				
Parameter	Suspended Solid (SS)						
Action & Limit Levels	Action Level	Limit Level					
	≥ 12.0 mg/L	≥ 14.0 mg/L					
Measurement Level	Impact Station(s) of	Control Stations	Impact Station(s) without				
	Exceedance		Exceedance				
	12.3 mg/L (B3)	11.3 mg/L (C1A)	8.8 mg/L (B1)				
	13.3 mg/L (CR2)	7.3 mg/L (C2A)	9.3 mg/L (B2)				
			9.0 mg/L (B4)				
			8.5 mg/L (F1A)				
			9.2 mg/L (H1)				
			9.2 mg/L (M1)				
			10.3 mg/L (S1)				
			10.3 mg/L (S2A)				
			11.2 mg/L (S3)				
			9.5 mg/L (CR1)				
Possible reason for Action or Limit Level Non-compliance	Works scheduled on site on 06/09 include cone penetration test, sand blanket levelling and rock filling works.						
	Dominating sea current direction was found to be from Southeast to Northwest waters around Shek Kwu Chau.						
	B3 is located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedance of this monitoring station is deemed to be unrelated to the Project.  CR2 is located close to the works location within the Project site while silt of checking was implemented on Cheung Kee 10 (09:00), GD851 (07:00) & 无						

(12:30) by the Contractor and checking results showed that no deficiency of silt curtain was found on that day. No rock filling work scheduled in Kam Ying 8 was carried out with refer to the site diary on 06/09/2019. From MMO monitoring records on 06/09, MMO teams were arranged for three derrick barges (宏建 2, GD-851 & Cheung Kee No.10) on that day while no deficiency of silt curtain was found before the commencement of and during construction activity. It might suggest that the SS exceedance at B3 & CR2 is deemed to be unrelated to the Project. Weekly site inspection for Portion 7 &7A (Tung Chung) was conducted on 03/09. For reference, site tidiness in the present barges in the Project site were checked during weekly site inspection on 09/09, where two parts of secondary silt curtain of ESC-62 are found floating outward. Due to the temporal reason, this observation might not contribute to the increase of the suspended solids recorded in 06/09. Two parts of secondary silt curtain of ESC-62 has been maintained in good condition Actions taken / to be taken on 11/09. The Contractor was reminded to keep tracking on the status of the deployed silt curtain during construction works. Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is remained to implement all applicable mitigation measures as per the Updated EM&A Manual. Remarks Current direction during mid-ebb sampling on 06/09: Speed (knot) Speed (knot) 0-0.5 1.5-2.0 0.5-1.0 2.0-2.5 1.0-1.5 2.5 and above (Sourced from http://current.hydro.gov.hk/en/map.html) Prepared by Polar Chan Date 12 Sep 2019

## **Interim Incident Report on Action Level or Limit Level Non-compliance**

Project	Integrated Waste Management Facilities, Phase 1						
Date	11 Sep 2019 (Lab result received on 16 Sep 2019)						
Time	09:06 – 12:36 (Mid-Ebb)						
Mid-Ebb							
Monitoring Location	+ B1 S1-	PROPOSED OUTFALL +  4 PROPOSED 132KV SUBMARINE CABLES  52  H1  SHEK KWU CHA  CR2  S3  PROPOSED RECLAIMED AREA FOR THE WIMF	Key  A PROPOSED 132KV  SUBMARINE CABLE				
Parameter	Suspended Solid (SS)						
Action & Limit Levels	Action Level	Limit Le	evel				
	≥ 12.0 mg/L	≥ 14.0 m					
Possible reason for Action or	Impact Station(s) of Exceedance 12.8 mg/L (B1)  Works scheduled on site on	Control Stations  5.5 mg/L (C1A) 5.0 mg/L (C2A)  11/09 include DCM mai	Impact Station(s) without Exceedance  8.0 mg/L (B2) 4.0 mg/L (B3) 4.0 mg/L (B4) 6.2 mg/L (F1A) 6.8 mg/L (H1) 8.5 mg/L (M1) 6.8 mg/L (S1) 8.5 mg/L (S2A) 6.3 mg/L (S3) 6.2 mg/L (CR1) 6.3 mg/L (CR2) n works, DCM sample coring for				
Limit Level Non-compliance	removal at vertical seawall, is seawall.  Dominating sea current dire waters around Shek Kwu Character at unrelated street.	rock filling works and flection was found to be au.	g the sand blanket, surface rock attening the formation of caisson from Northwest to Southeast at estream nor downstream, far toring station is deemed to be				

Silt curtain checking was implemented on Cheung Kee No.10 (17:00), ESC-61 (09:40), ESC-62 (12:00) & GD-851 (07:00) by the Contractor and checking results showed that no deficiency of silt curtain was found on that day. No surface rock removal at vertical seawall was carried out in Chun Tai 2 with refer to site diary on that day. Silt curtain checking record for 宏建 2 was pending for checking, yet as the timing of construction activity at 宏建 2 was conducted after the sampling event, thus the situation of 宏建 2 was considered irrelevant to the exceedance event. From MMO monitoring records on 11/09, MMO teams were arranged for four derrick barges (宏建 2, GD-851, Chun Tai 2 & Cheung Kee No.10) and two DCM barges (ESC-61 & ESC-62) on that day while no deficiency of silt curtain was found before the commencement of and during construction activity. Site tidiness in the present barges in the Project site were checked during weekly site inspection on 09/09, where two parts of secondary silt curtain of ESC-62 are found floating outward. However, according to the rationale in previous paragraphs, this observation might not contribute to the increase of the suspended solids recorded. Actions taken / to be taken Two parts of secondary silt curtain of ESC-62 has been maintained in good condition on 11/09. The Contractor was reminded to keep tracking on the status of the deployed silt curtain during construction works. Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is remained to implement all applicable mitigation measures as per the Updated EM&A Manual. Current direction during mid-ebb sampling on 11/09: Remarks Legend Speed (knot) Speed (knot) 0-0.5 1.5-2.0 0.5-1.0 2.0-2.5 1.0-1.5 2.5 and above (Sourced from http://current.hydro.gov.hk/en/map.html) Prepared by Polar Chan

Date	17 Sep 2019	

## **Incident Report on Action Level or Limit Level Non-compliance**

Project	Integrated Waste Management Facilities, Phase 1						
Date	18 Sep 2019 (Lab result received on 23 Sep 2019)						
Time	12:51 – 16:21 (Mid-Ebb)						
Mid-Ebb							
Monitoring Location	+ B1 S1-	4 PROPOSED 132KV SUBMARINE CABLES  \$2  SHEK	H1  C2A  Key  A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY				
Parameter	Suspended Solid (SS)						
Action & Limit Levels	Action Level	Li	mit Level				
	≥ 12.0 mg/L		14.0 mg/L				
Possible reason for Action or Limit Level Non-compliance	Impact Station(s) of Exceedance 14.0 mg/L (B4)  Works scheduled on site on DCM main works, cone pene	Control Stations 6.7 mg/L (C1A) 7.2 mg/L (C2A) 18/09 include DC1 etration test, levell	Impact Station(s) without Exceedance  10.0 mg/L (B1) 10.0 mg/L (B2) 8.5 mg/L (B3) 7.7 mg/L (F1A) 10.2 mg/L (H1) 8.2 mg/L (M1) 6.5 mg/L (S1) 6.0 mg/L (S2A) 8.8 mg/L (S3) 7.8 mg/L (CR1) 7.3 mg/L (CR2)  M main works, DCM sample coring for ing the sand blanket, rock filling works,				
r	Dominating sea current dire waters around Shek Kwu Cha	ection was found au.	laying geotextiles at reclamation area.  to be from Northwest to Southeast at ther upstream nor downstream, far monitoring station is deemed to be				

From MMO monitoring records on 18/09, MMO teams were arranged for one DCM barges (ESC62) and four derrick barges (宏建1, GD-853, GD-851 & Cheung Kee No.10) on that day while no deficiency of silt curtain was found before the commencement of and during construction activity. No silt curtain in ESC62 was checked by MMO due to absence of construction works, while MMO was deployed in ESC62 for the implementation of cluster marine mammal exclusion zone.

Silt curtain checking was implemented on GD-851 (16:15), GD-853 (07:00) & Cheung Kee No.10 (10:00) by the Contractor and checking results showed that no deficiency of silt curtain was found on that day. No DCM main works was carried out in ESC62 with refer to the site diary on that day.

Silt curtain checking record for  $\mathbb{Z}$  1 was pending for checking, yet as the timing of construction activity at  $\mathbb{Z}$  1 was conducted more than 12 hours before the sampling event according to MMO monitoring records, thus the situation of  $\mathbb{Z}$  1 was considered irrelevant to the exceedance event.

Site tidiness in the present barges in the Project site were checked during weekly site inspection on 17/09, where two-double layers silt curtain for coral protection should be repaired and maintained in good condition. However, according to the rationale in previous paragraphs, this observation might not contribute to the increase of the suspended solids recorded.

Actions taken / to be taken

The two-double layers silt curtain for coral protection keep repairing. The Contractor was reminded to keep tracking on the status of the deployed silt curtain during construction works.

Examination of environmental performance of the Project will be continued during the weekly inspection, and the Contractor is remained to implement all applicable mitigation measures as per the Updated EM&A Manual.

Remarks

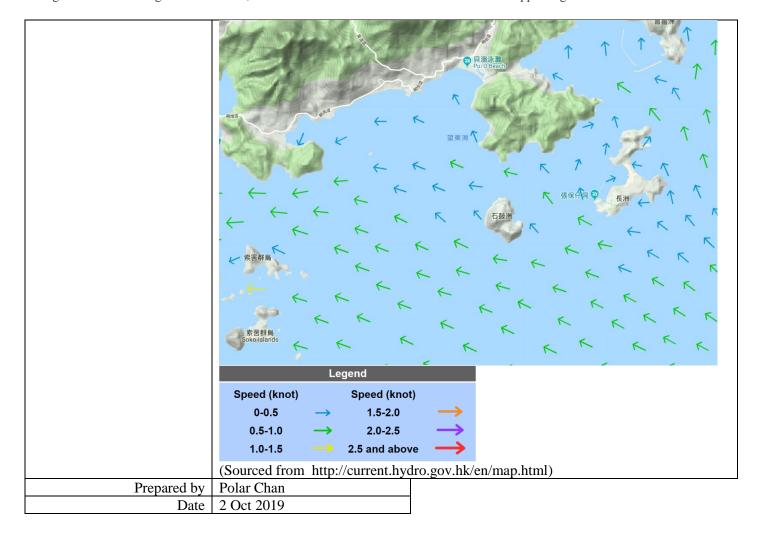
Current direction during mid-ebb sampling on 18/09:



		Legend		
	Speed (knot)		Speed (knot)	
	0-0.5	$\rightarrow$	1.5-2.0	$\rightarrow$
	0.5-1.0	$\rightarrow$	2.0-2.5	$\rightarrow$
	1.0-1.5		2.5 and above	$\rightarrow$
	(Sourced from	http:	//current.hydro	.gov.hk/
Prepared by	Polar Chan			
Date	25 Sep 2019			

## **Interim Incident Report on Action Level or Limit Level Non-compliance**

Project	Integrated Waste Management Facilities, Phase 1						
Date	25 Sep 2019 (Lab result received on 01 Oct 2019)						
Time	15:02 – 18:32 (Mid-Flood)						
	Mid-Flood						
Monitoring Location	F1A  B1 S1	PROPOSED OUTFALL +  PROPOSED 1  SUBMARINE CA  PROPOSED RECLAIME FOR THE IMMIF	H1 SHEK KWU CHAU  CR2 S3 CR1	F1 F1A  N  F1 F1A  N  C2A  Key  A PROPOSED 132KV SUBMARINE CABLE MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE WMF SITE BOUNDARY			
Parameter	Suspended Solid (SS)						
Action & Limit Levels	Action Level		Limit Level				
	≥ 12.0 mg/L		≥ 14.0 mg/L				
Measurement Level	Impact Station(s) of	Control Stati	ons	Impact Station(s) without			
	Exceedance			Exceedance			
	17.2 mg/L (F1A)	6.7 mg/L (C	1A)	2.8 mg/L (B1)			
		5.7 mg/L (C2	2A)	4.0 mg/L (B2)			
				3.3 mg/L (B3)			
				4.3 mg/L (B4)			
				4.0 mg/L (H1)			
				3.8 mg/L (M1)			
				4.0 mg/L (S1)			
				3.3 mg/L (S2A)			
				4.3 mg/L (S3)			
				3.3 mg/L (CR1)			
				2.7 mg/L (CR2)			
Possible reason for Action or							
	E						
Limit Level Non-compliance				F1A is located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedance of this monitoring station is deemed to be unrelated to the Project.			
•	away) to the works location, unrelated to the Project.	exceedance of	this monitoring				
Actions taken / to be taken	away) to the works location,	exceedance of	this monitoring				



## **Interim Incident Report on Action Level or Limit Level Non-compliance**

Project	Integrated Waste Managemen	nt Facilities, Ph	nase 1			
Date	27 Sep 2019 (Lab result received on 02 Oct 2019)					
Time	09:20 – 12:50 (Mid-Ebb)					
	14:50 – 19:00 (Mid-Flood)					
	Mid-E	Ebb				
Monitoring Location	S1 & S2A + B1	B2  ROPOSED OUTFALL +  4 PROPOSED 132 SUBMARINE CAB  PROPOSED RECLAIMED FOR THE IMME	SHEK KWU CHAU	F1 F1A  N  F1 PF1A  N  Key  A PROPOSED 132KV SUBMARINE CABLE  MONITORING STATION PROPOSED OUTFALL THE IWMF SITE BOUNDARY LAND FORMATION FOOTPRINT THE IWMF SITE BOUNDARY		
Parameter	Suspended Solid (SS)					
Action & Limit Levels	Action Level		Limit Level			
	$\geq$ 13.4 mg/L (120% of C1A)			130% of C1A)		
Measurement Level	Impact Station(s) of	Control Statio		Impact Station(s) without		
Treasurement Bever	Exceedance	Control State	3113	Exceedance		
	15.3 mg/L (S1)	11.2 mg/L (C	(1A)	10.5 mg/L (B1)		
	13.8 mg/L (S2A)	8.8 mg/L (C2		11.0 mg/L (B2)		
	10:0 11.19, 2 (02.12)	0.0 1118/2 (02		10.5 mg/L (B3)		
				11.8 mg/L (B4)		
				11.0 mg/L (F1A)		
				10.5 mg/L (H1)		
				6.8 mg/L (M1)		
				7.7 mg/L (S3)		
				8.7 mg/L (CR1)		
				8.2 mg/L (CR2)		
Possible reason for Action or Limit Level Non-compliance	Dominating sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.					
	S1 & S2A are located at unrelated stream direction (neither upstream nor downstream, far away) to the works location, exceedances of these monitoring stations are deemed to be unrelated to the Project.					
Mid-Flood						
Monitoring Location	B2, B3 & B4					

