

Notification No.: 20170901DO\_v1

**Date of Investigation Report:** 6 October 2017

**Works Inspected:** Data collected from water sampling works on 1 September 2017 and the results were issued on 4 September 2017

**Monitoring Location:** Water Quality Monitoring Station

**Parameter:** Dissolved Oxygen (DO)/ ~~Suspended Solid (SS)/ Turbidity (TURB)~~

**Action & Limit Level (AL & LL) / Measured Level:**

PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	IS5	Bottom	Surface and Middle 5.0 Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ) Bottom 3.6	<b>4.4</b>	<b>4.4</b>
DO	IS10(N)	Bottom			<b>4.5</b>	<b>4.5</b>
DO	IS(Mf)11	Bottom			<b>4.6</b>	<b>4.5</b>
DO	IS17	Bottom			<b>4.5</b>	5.2
DO	SR5(N)	Bottom			<b>4.5</b>	4.7

Notes:

AL means Action Level.

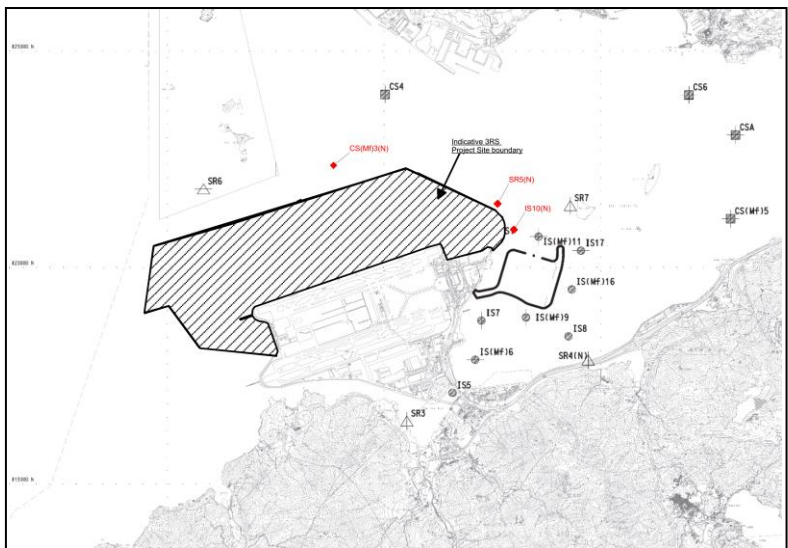
LL means Limit Level.

**Bold** means AL exceedances.

**Bold with underline** means LL exceedances.

**Possible reason for Action and Limit Level Non-compliance:**

On 1 September 2017, five AL exceedances of DO recorded at IS5, IS10(N), IS(Mf)11, IS17 and SR5(N) were recorded during mid-ebb tide and three AL exceedances of DO recorded at IS5, IS10(N) and IS(Mf)11 were recorded during mid-flood tide.



As confirmed by the Contractor, there were no marine transportation and marine-based work on 1 September 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedance was not related the Contract.

**Actions taken/ to be taken:**

As the exceedance was not related to the Contract, no immediate action are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau

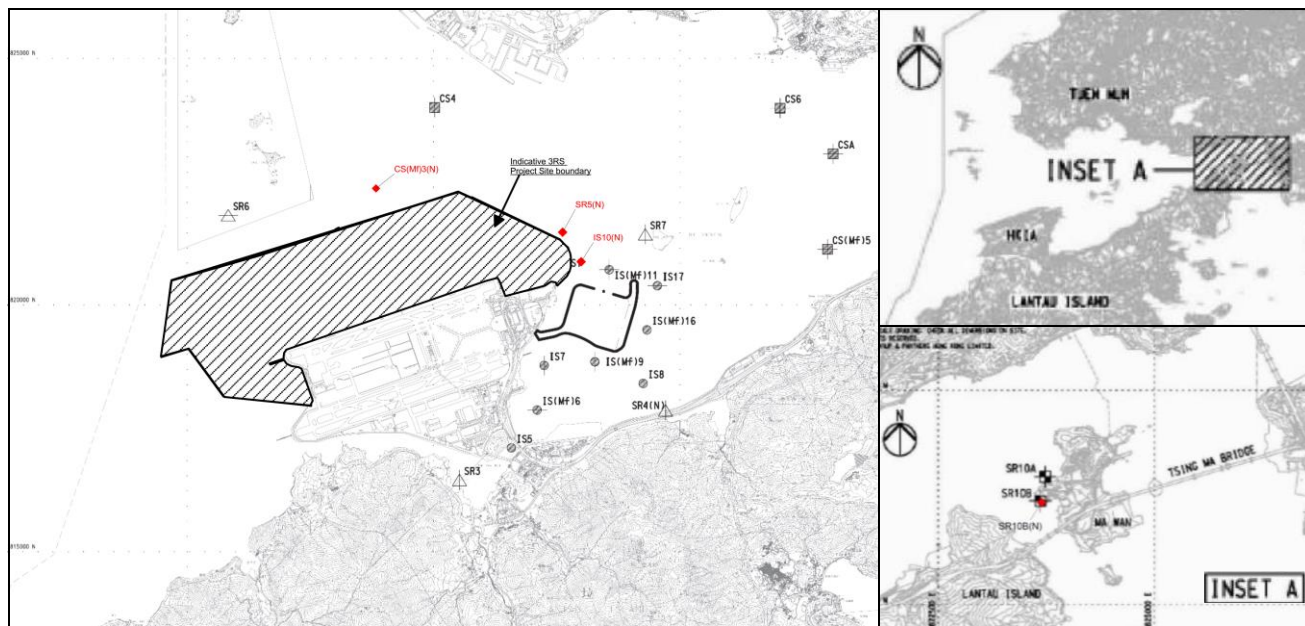
Title : ET Leader

Date : 6 October 2017

Copied to: Contractor and Engineer Representative

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20170906DO_TURB_v3	
Date of Notification: 11 September 2017				Date of Investigation Report: 9 October 2017		
Works Inspected: Data collected from water sampling works on 6 September 2017 and the results were issued on 11 September 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: Dissolved Oxygen (DO)/ <del>Suspended Solid (SS)</del> / Turbidity (TURB)						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	IS17	Bottom	Surface and Middle 5.0 Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ) Bottom 3.6	4.6	4.9
	SR6	Surface and Middle			5.7	4.8
	SR10A	Surface and Middle			4.9	4.6
		Bottom			4.8	4.5
	SR10B(N)	Surface and Middle			4.8	4.6
		Bottom			4.8	4.5
PARAM	STATION	DEPTH	AL (NTU)	LL (NTU)	MEASURED AT MID-EBB TIDE (NTU)	MEASURED AT MID-FLOOD TIDE (NTU)
TURB	IS(Mf)11	Depth Average	27.5 and 120% (i.e. 17.6 for mid-ebb/18.7 for mid-flood) of upstream control station's turbidity at the same tide of the same day	47.0 and 130% (i.e. 19.0 for mid-ebb/20.2 for mid-flood) of upstream control station's turbidity at the same tide of the same day	14.6	27.9
Notes: AL means Action Level. LL means Limit Level. Bold means AL exceedances. Bold with underline means LL exceedances. Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4 Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA						

On 6 September 2017, one AL exceedance of DO recorded at IS17 was recorded during mid-ebb tide, three AL exceedances of DO recorded at SR6, SR10A, and SR10B(N) were recorded during mid-flood tide, two LL exceedances of DO recorded at SR10A and SR10B(N) were recorded during mid-ebb tide, two LL exceedances of DO recorded at SR10A and SR10B(N) were recorded during mid-flood tide and one AL exceedance of TURB recorded at IS(Mf)11 was recorded during mid-flood tide.



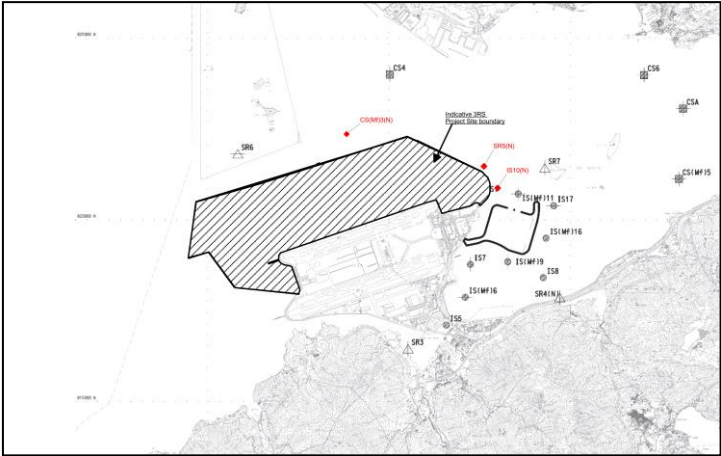
**Actions taken/ to be taken:**

As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Title : ET Leader

Date : 9 October 2017

Copied to : Contractor and Engineer Representative

<b>Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge</b> <b>Hong Kong Boundary Crossing Facilities – Passenger Clearance Building</b> <b>Notifications of Environmental Quality Limits Exceedances</b> <span style="float: right;">Notification No.: 20170906SS_v1</span>						
<b>Date of Notification:</b> 19 September 2017				<b>Date of Investigation Report:</b> 25 September 2017		
<b>Works Inspected:</b> Data collected from water sampling works on 6 September 2017 and the results were issued on 15 September 2017						
<b>Monitoring Location:</b> Water Quality Monitoring Station						
<b>Parameter:</b> Dissolved Oxygen (DO)/ Suspended Solid (SS)/ Turbidity (TURB)						
<b>Action &amp; Limit Level (AL &amp; LL) / Measured Level:</b>						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
SS	IS8	Depth Average	23.5 and 120% (i.e. 11.3 for mid-ebb/14.1 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 12.3 for mid-ebb/15.3 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	8.1	<b>26.4</b>
	SR4(N)				9.4	<b>25.3</b>
	SR6				6.2	<b>23.6</b>
<p>Notes:</p> <p>AL means Action Level.</p> <p>LL means Limit Level.</p> <p><b>Bold</b> means AL exceedances.</p> <p><b><u>Bold with underline</u></b> means LL exceedances.</p> <p>Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4</p> <p>Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA</p> <p><b>Possible reason for Action and Limit Level Non-compliance:</b></p> <p>On 6 September 2017, three AL exceedances of SS recorded at IS8,SR4(N) and SR6 were recorded during mid-flood tide.</p> <div style="text-align: center;">  </div> <p>As confirmed by the Contractor, there were no marine transportation and marine-based work on 6 September 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.</p> <p><b>Actions taken/ to be taken:</b></p> <p>As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.</p>						

Reviewed by : Keith Chau

Title : ET Leader



Date : 25 September 2017

Copied to : Contractor and Engineer Representative



Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20170908DO_TURB_v3	
Date of Notification: 13 September 2017				Date of Investigation Report: 9 October 2017		
Works Inspected: Data collected from water sampling works on 8 September 2017 and the results were issued on 12 September 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: Dissolved Oxygen (DO)/ <del>Suspended Solid (SS)</del> / Turbidity (TURB)						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	IS5	Surface and Middle	Surface and Middle 5.0  Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ)  Bottom 3.6	5.0	<b>4.9</b>
	IS7	Surface and Middle			<b>4.8</b>	5.1
		Bottom			<b>4.6</b>	5.2
	IS8	Surface and Middle			5.0	<b>4.9</b>
	IS(Mf)9	Surface and Middle			5.3	<b>4.8</b>
	IS10(N)	Surface and Middle			<b>4.9</b>	<b>4.7</b>
	IS(Mf)11	Surface and Middle			5.0	<b>4.7</b>
		Bottom			4.8	<b>4.6</b>
	IS(Mf)16	Surface and Middle			<b>4.6</b>	<b>4.9</b>
		Bottom			<b>4.3</b>	5.0
	IS17	Surface and Middle			<b>4.9</b>	<b>4.7</b>
		Bottom			<b>4.3</b>	<b>4.5</b>
	SR3	Surface and Middle			<b>4.7</b>	<b>4.9</b>
	SR4(N)	Surface and Middle			5.2	<b>4.9</b>
	SR5(N)	Surface and Middle			5.0	<b>4.8</b>
	SR6	Surface and Middle			<b>4.9</b>	<b>4.9</b>
	SR7	Surface and Middle			5.1	<b>4.9</b>
	SR10A	Surface and Middle			<b>4.9</b>	<b>4.3</b>
		Bottom			4.8	<b>4.3</b>
	SR10B(N)	Surface and Middle			<b>4.8</b>	<b>4.7</b>
PARAM	STATION	DEPTH	AL (NTU)	LL (NTU)	MEASURED AT MID-EBB TIDE (NTU)	MEASURED AT MID-FLOOD TIDE (NTU)
TURB	IS5	Depth Average	27.5 and 120% (i.e. 20.2 for mid-ebb/13.7 for mid-flood) of upstream control station's turbidity at the same tide of the same day	47.0 and 130% (i.e. 21.9 for mid-ebb/14.9 for mid-flood) of upstream control station's turbidity at the same tide of the same day	<b>34.4</b>	6.6
	IS10(N)				25.2	<b>31.6</b>
	IS(Mf)11				17.8	<b>29.0</b>
	SR6				12.2	<b>35.3</b>

**Notes:**

AL means Action Level.

LL means Limit Level.

**Bold** means AL exceedances.

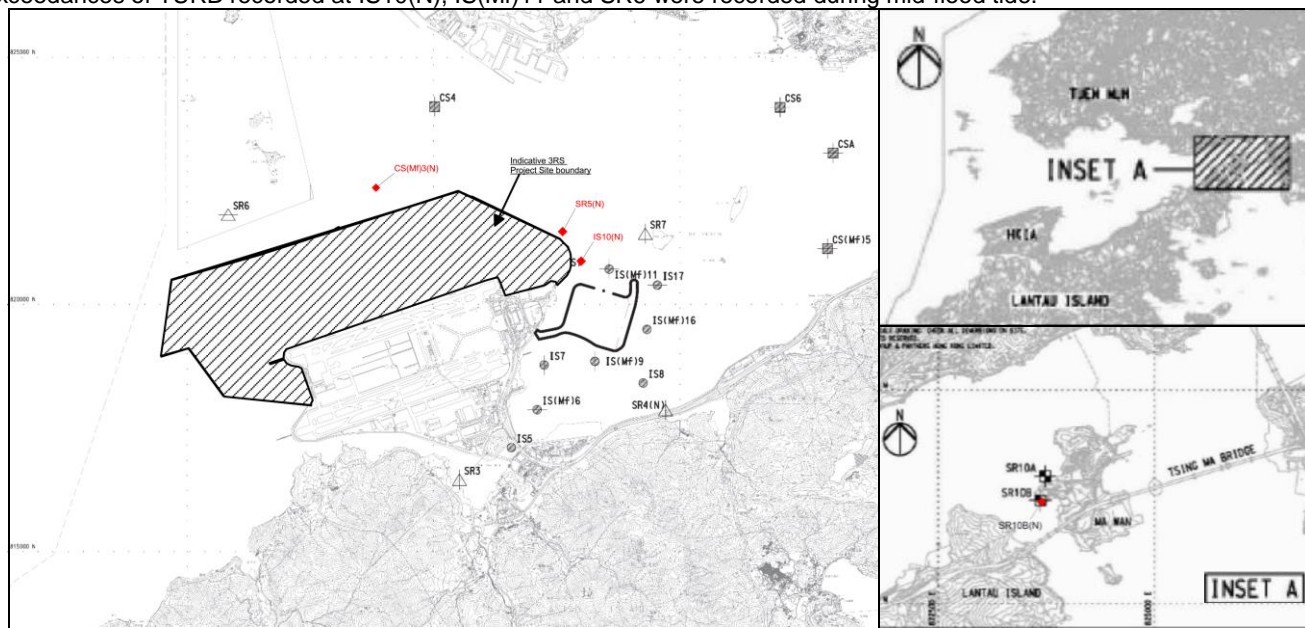
**Bold with underline** means LL exceedances.

Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4

Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA

**Possible reason for Action and Limit Level Non-compliance:**

On 8 September 2017, nine AL exceedances of DO recorded at IS7, IS10(N), IS(Mf)16, IS17, SR3 and SR6 were recorded during mid-ebb tide, fifteen AL exceedances of DO recorded at IS5, IS8, IS(Mf)9, IS10(N), IS(Mf)11, IS(Mf)16, IS17, SR3, SR4(N), SR5(N), SR6, SR7 and SR10A were recorded during mid-flood tide, two LL exceedances of DO recorded at SR10A and SR10B(N) were recorded during mid-ebb tide, two LL exceedances of DO recorded at SR10A and SR10B(N) were recorded during mid-flood tide, one AL exceedance of TURB recorded at IS5 was recorded during mid-ebb tide and three AL exceedances of TURB recorded at IS10(N), IS(Mf)11 and SR6 were recorded during mid-flood tide.



As confirmed by the Contractor, there were no marine transportation and marine-based work on 8 September 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau

Title : ET Leader

Date : 9 October 2017

Copied to : Contractor and Engineer Representative

**Date of Notification:** 19 September 2017

**Date of Investigation Report:** 25 September 2017

**Works Inspected:** Data collected from water sampling works on 8 September 2017 and the results were issued on 18 September 2017

**Monitoring Location:** Water Quality Monitoring Station

**Parameter:** ~~Dissolved Oxygen (DO)~~/ Suspended Solid (SS)/ ~~Turbidity (TURB)~~

**Action & Limit Level (AL & LL) / Measured Level:**

PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
SS	IS5	Depth Average	23.5 and 120% (i.e. 20.4 for mid-ebb/10.5 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 22.1 for mid-ebb/11.4 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	<b>28.4</b>	8.7
	IS10(N)				19.5	<b><u>35.5</u></b>
	IS(Mf)11				15.4	<b>33.2</b>

**Notes:**

AL means Action Level.

LL means Limit Level.

**Bold** means AL exceedances.

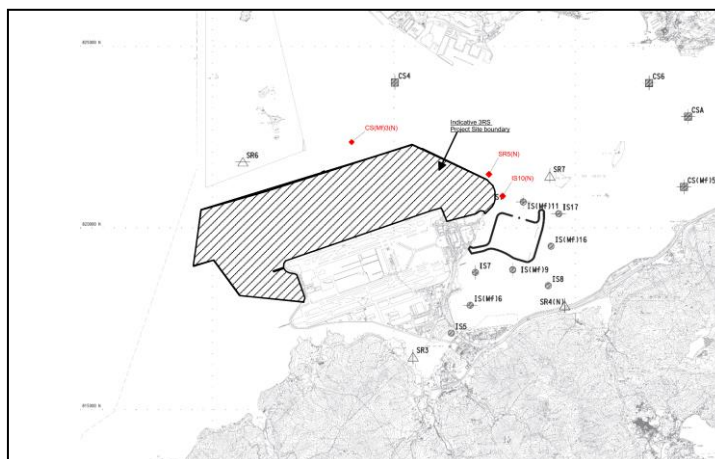
**Bold with underline** means LL exceedances.

Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4

Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA

**Possible reason for Action and Limit Level Non-compliance:**

On 8 September 2017, one AL exceedance of SS recorded at IS5 was recorded during mid-ebb tide. One AL exceedance of SS recorded at IS(Mf)11 and one LL exceedance of SS at IS10(N) were recorded during mid-flood tide.



As confirmed by the Contractor, there were no marine transportation and marine-based work on 8 September 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau

Title : ET Leader

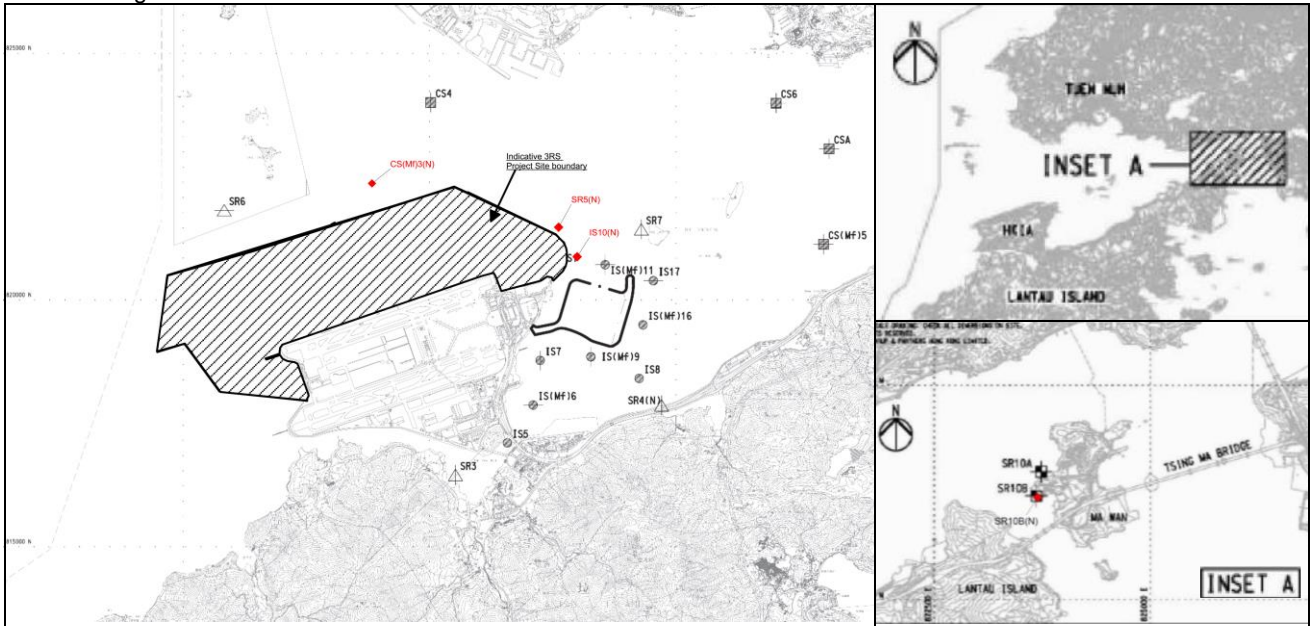
Date : 25 September 2017

Copied to : Contractor and Engineer Representative

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20170911DO_v1	
Date of Notification: 15 September 2017				Date of Investigation Report: 6 October 2017		
Works Inspected: Data collected from water sampling works on 11 September 2017 and the results were issued on 14 September 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: Dissolved Oxygen (DO)/ <del>Suspended Solid (SS)</del> / Turbidity (TURB)						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	IS8	Surface and Middle	Surface and Middle 5.0 Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ) Bottom 3.6	5.2	<b>4.8</b>
		Bottom			5.0	<b>4.6</b>
	IS(Mf)9	Surface and Middle			5.3	<b>4.8</b>
	IS10(N)	Surface and Middle			<b>4.9</b>	<b>4.6</b>
		Bottom			4.8	<b>4.4</b>
	IS(Mf)11	Surface and Middle			<b>4.9</b>	<b>4.6</b>
		Bottom			<b>4.6</b>	<b>4.5</b>
	IS(Mf)16	Surface and Middle			5.2	<b>4.7</b>
		Bottom			<b>4.3</b>	<b>4.6</b>
	IS17	Surface and Middle			<b>4.8</b>	<b>4.5</b>
		Bottom			<b>4.2</b>	<b>4.2</b>
	SR4(N)	Surface and Middle			5.3	<b>4.8</b>
	SR5(N)	Surface and Middle			<b>4.7</b>	<b>4.6</b>
		Bottom			<b>4.6</b>	<b>4.6</b>
	SR6	Surface and Middle			<b>4.7</b>	<b>4.7</b>
		Bottom			4.7	<b>4.6</b>
	SR7	Surface and Middle			<b>4.9</b>	<b>4.7</b>
	SR10A	Surface and Middle			5.2	<b>4.5</b>
		Bottom			5.1	<b>4.1</b>
	SR10B(N)	Surface and Middle			<b>4.8</b>	<b>4.2</b>
Bottom		<b>4.6</b>	<b>4.0</b>			
<p>Notes: AL means Action Level. LL means Limit Level. <b>Bold</b> means AL exceedances. <b>Bold with underline</b> means LL exceedances. Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4 Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA</p>						

**Possible reason for Action and Limit Level Non-compliance:**

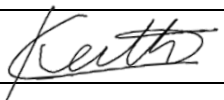
On 11 September 2017, eleven AL exceedances of DO recorded at IS10(N), IS(Mf)11, IS(Mf)16, IS17, SR5(N), SR6, SR7 and SR10B(N) were recorded during mid-ebb tide, nineteen AL exceedances of DO recorded at IS8, IS(Mf)9, IS10(N), IS(Mf)11, IS(Mf)16, IS17, SR4(N), SR5(N), SR6, SR10A and SR10B(N) were recorded during mid-flood tide. One LL exceedance of DO recorded at SR10B(N) was recorded during mid-ebb tide, two LL exceedances of DO recorded at SR10A and SR10B(N) were recorded during mid-flood tide.



As confirmed by the Contractor, there were no marine transportation and marine-based work on 11 September 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau Title : ET Leader  
  
Date : 6 October 2017

Copied to : Contractor, Engineer Representative and IEC/ENPO

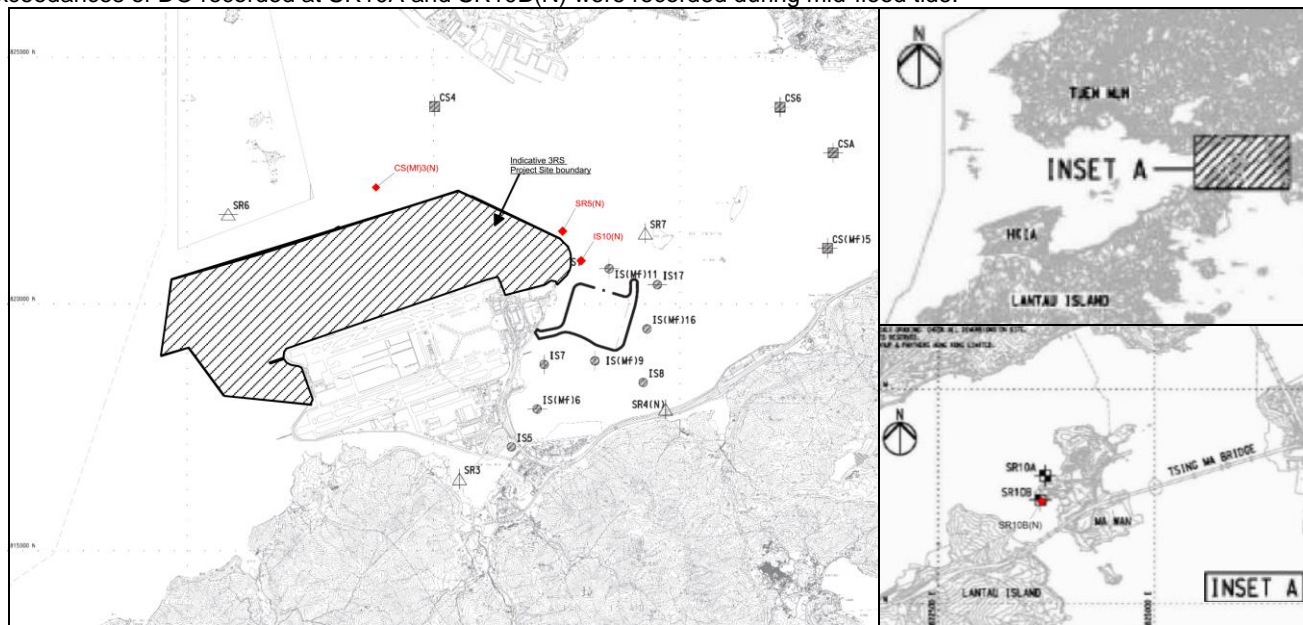
Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20170913DO_v1	
Date of Notification: 19 September 2017				Date of Investigation Report: 6 October 2017		
Works Inspected: Data collected from water sampling works on 13 September 2017 and the results were issued on 18 September 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: Dissolved Oxygen (DO)/ <del>Suspended Solid (SS)/ Turbidity (TURB)</del>						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	IS5	Bottom	Surface and Middle 5.0 Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ) Bottom 3.6	<b>4.1</b>	<b>4.1</b>
	IS(Mf)9	Bottom			6.5	<b>4.2</b>
	IS10(N)	Surface and Middle			<b>4.7</b>	5.0
	IS(Mf)11	Surface and Middle			5.1	<b>4.9</b>
	IS(Mf)16	Bottom			<b>4.1</b>	<b>4.2</b>
	IS17	Surface and Middle			5.0	<b>4.9</b>
		Bottom			<b>3.8</b>	<b>4.1</b>
	SR5(N)	Surface and Middle			<b>4.8</b>	5.5
	SR10A	Surface and Middle			<b><u>4.9</u></b>	<b><u>4.4</u></b>
		Bottom			5.2	<b>3.9</b>
	SR10B(N)	Surface and Middle			5.2	<b><u>4.4</u></b>
		Bottom			5.4	<b>4.1</b>

Notes:  
AL means Action Level.  
LL means Limit Level.  
**Bold** means AL exceedances.  
**Bold with underline** means LL exceedances.  
Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4  
Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA



**Possible reason for Action and Limit Level Non-compliance:**

On 13 September 2017, five AL exceedances of DO recorded at IS5, IS10(N), IS(Mf)16, IS17 and SR5(N) were recorded during mid-ebb tide, eight AL exceedances of DO recorded at IS5, IS(Mf)9, IS(Mf)11, IS(Mf)16, IS17, SR10A and SR10B(N) were recorded during mid-flood tide. One LL exceedance of DO recorded at SR10A was recorded during mid-ebb tide, two LL exceedances of DO recorded at SR10A and SR10B(N) were recorded during mid-flood tide.



As confirmed by the Contractor, there were no marine transportation and marine-based work on 13 September 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau

Title : ET Leader



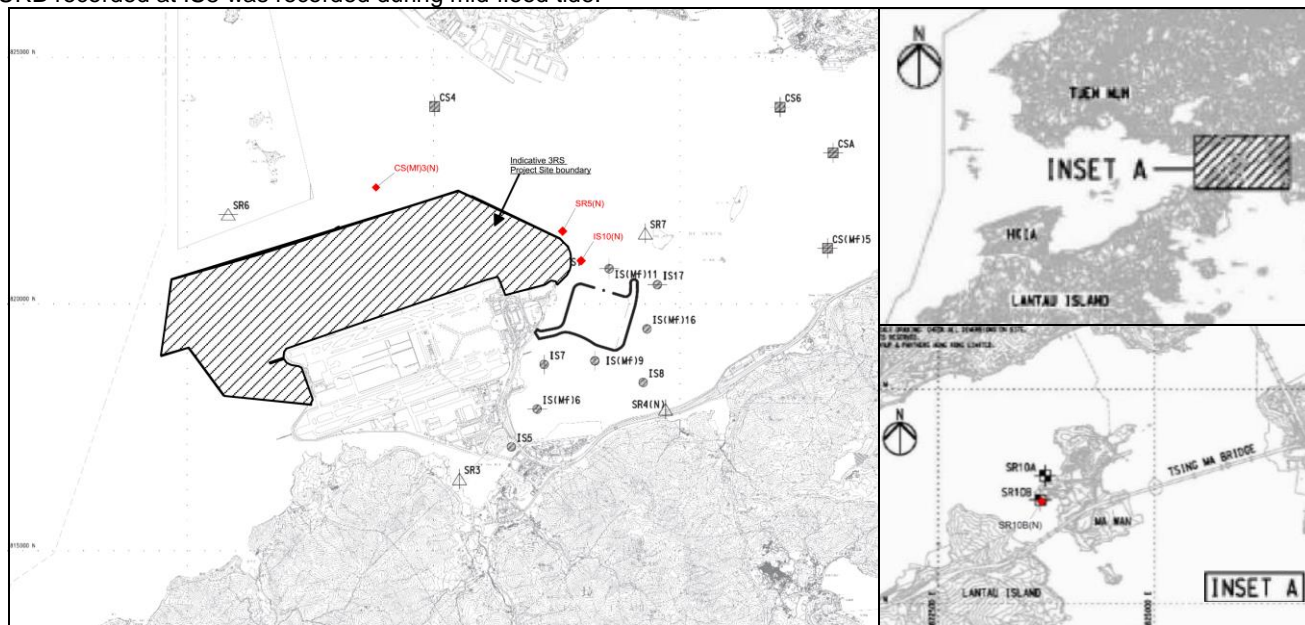
Date : 6 October 2017

Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20170915DO_TURB_v2	
Date of Notification: 21 September 2017				Date of Investigation Report: 12 October 2017		
Works Inspected: Data collected from water sampling works on 15 September 2017 and the results were issued on 19 September 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: Dissolved Oxygen (DO)/ <del>Suspended Solid (SS)</del> / Turbidity (TURB)						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	IS10(N)	Bottom	Surface and Middle 5.0  Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ)  Bottom 3.6	4.2	4.5
	IS(Mf)11	Surface and Middle			4.1	4.7
	IS17	Surface and Middle			4.9	5.7
		Bottom			3.9	4.7
	SR6	Surface and Middle			5.5	4.8
		Bottom			4.7	4.5
	SR10A	Surface and Middle			5.5	4.7
		Bottom			5.4	3.9
	SR10B(N)	Surface and Middle			5.4	4.6
		Bottom			5.0	4.3
TURB	IS8	Depth Average	27.5 and 120% (i.e. 19.6 for mid-ebb/15.4 for mid-flood) of upstream control station's turbidity at the same tide of the same day	47.0 and 130% (i.e. 21.2 for mid-ebb/16.7 for mid-flood) of upstream control station's turbidity at the same tide of the same day	10.6	95.4*
Notes: AL means Action Level. LL means Limit Level. Bold means AL exceedances. Bold with underline means LL exceedances. Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4 Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA *The muddy water was observed due to 3 fast boats were moving around near the monitoring location during measurement period.						

**Possible reason for Action and Limit Level Non-compliance:**

On 15 September 2017, four AL exceedances of DO recorded at IS10(N), IS(Mf)11 and IS17 were recorded during mid-ebb tide, six AL exceedances of DO recorded at IS10(N), IS(Mf)11, SR6, SR10A and SR10B(N) were recorded during mid-flood tide and two LL exceedances of DO recorded at SR10A and SR10B(N) were recorded during mid-flood tide. One AL exceedance of TURB recorded at IS8 was recorded during mid-flood tide.



As confirmed by the Contractor, there were no marine transportation and marine-based work on 15 September 2017. No site runoff within the Contract site has been observed. The muddy water was observed due to 3 fast boats were moving around near the monitoring station IS8 during measurement period. No observation photos were taken during measurement period.

Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau

Title : ET Leader



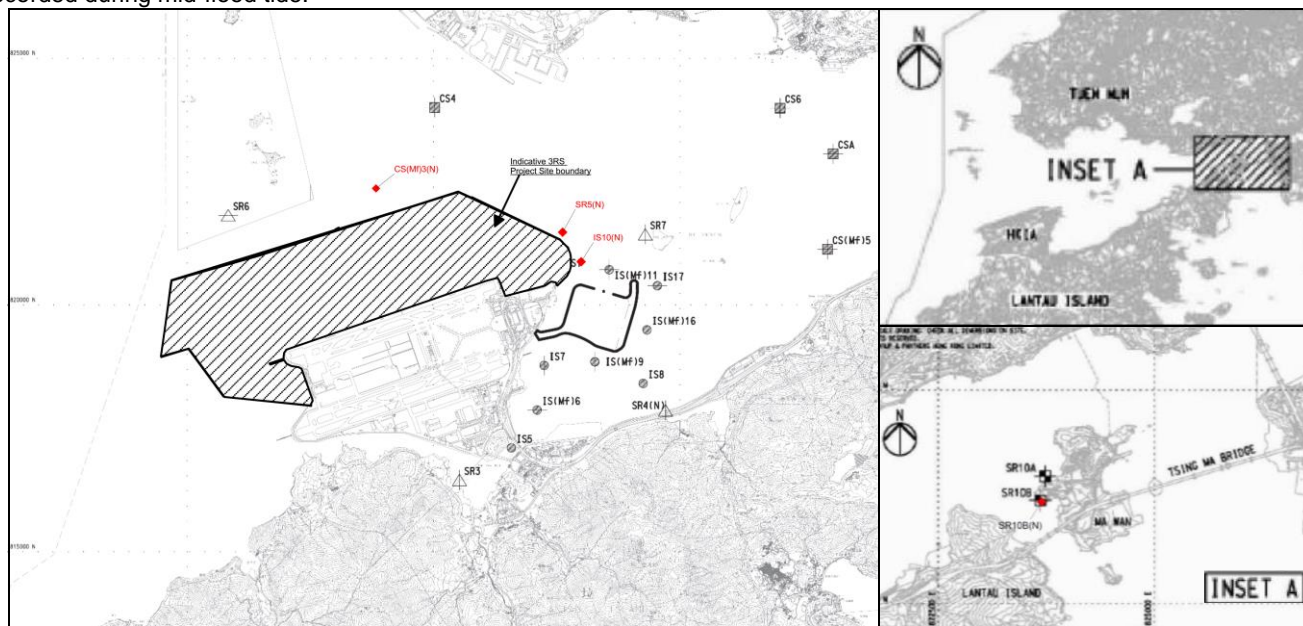
Date : 12 October 2017

Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20170918DO_SS_v1	
Date of Notification: 27 September 2017				Date of Investigation Report: 27 September 2017		
Works Inspected: Data collected from water sampling works on 18 September 2017 and the results were issued on 27 September 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: Dissolved Oxygen (DO)/ Suspended Solid (SS)/ Turbidity (TURB)						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	IS5	Bottom	Surface and Middle 5.0 Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ) Bottom 3.6	4.5	5.8
	IS10(N)	Bottom			4.6	5.0
	IS(Mf)11	Bottom			4.6	5.0
	IS(Mf)16	Bottom			4.4	5.0
	SR6	Surface and Middle			4.7	4.4
		Bottom			4.5	4.3
	SR10A	Surface and Middle			5.5	4.7
	SR10B(N)	Surface and Middle			5.4	4.9
SS	IS8	Depth Average	23.5 and 120% (i.e. 9.9 for mid-ebb/13.4 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 10.8 for mid-ebb/14.5 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	6.3	25.0
Notes: AL means Action Level. LL means Limit Level. Bold means AL exceedances. Bold with underline means LL exceedances. Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4 Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA						

**Possible reason for Action and Limit Level Non-compliance:**

On 18 September 2017, six AL exceedances of DO recorded at IS5, IS10(N), IS(Mf)11, IS(Mf)16 and SR6 were recorded during mid-ebb tide, two AL exceedances of DO recorded at SR6 were recorded during mid-flood tide, two LL exceedances of DO recorded at SR10A and SR10B(N) were recorded during mid-flood tide and one AL exceedance of SS recorded at IS8 was recorded during mid-flood tide.



As confirmed by the Contractor, there were no marine transportation and marine-based work on 18 September 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau

Title : ET Leader

Date : 27 September 2017

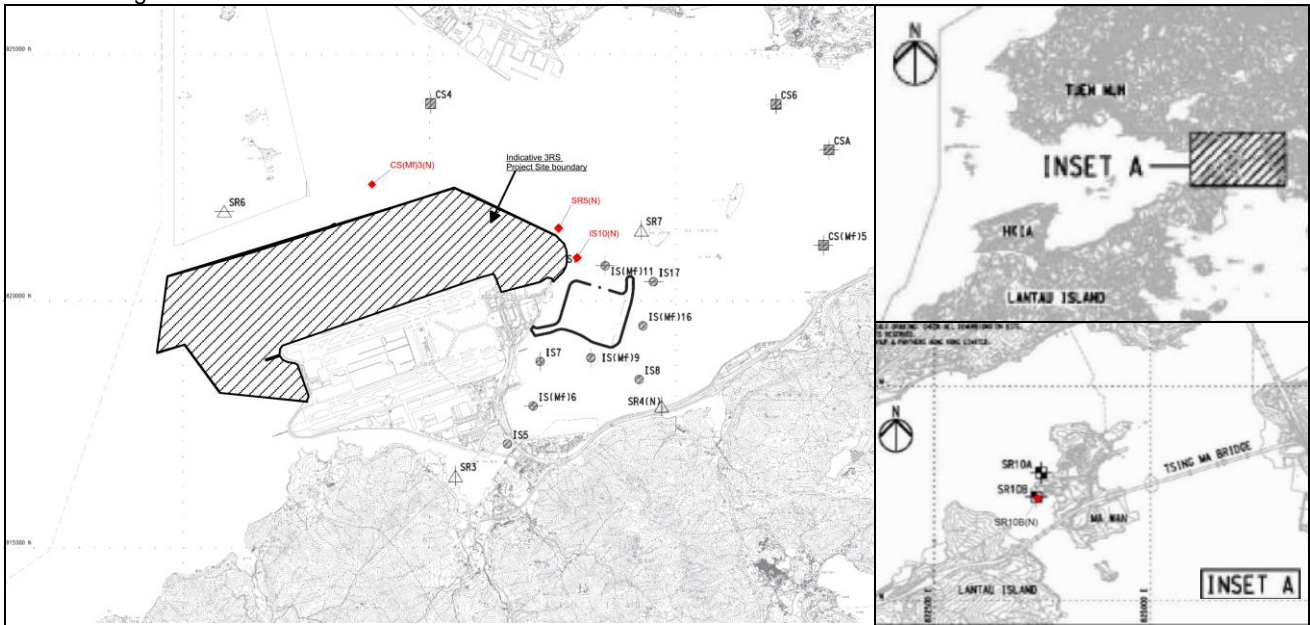
Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20170920DO_SS_v1	
Date of Notification: 25 September 2017				Date of Investigation Report: 11 October 2017		
Works Inspected: Data collected from water sampling works on 20 September 2017 and the results were issued on 29 September 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: Dissolved Oxygen (DO)/ Suspended Solid (SS)/ Turbidity (TURB)						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	SR6	Surface and Middle	Surface and Middle 5.0 Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ) Bottom 3.6	5.1	4.5
		Bottom		5.0	4.6	
	SR10A	Surface and Middle		5.0	4.5	
		Bottom		4.7	4.5	
	SR10B(N)	Surface and Middle		5.0	4.5	
SS	SR6	Depth Average	23.5 and 120% (i.e. 16.7 for mid-ebb/19.0 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 18.1 for mid-ebb/20.6 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	10.4	25.4
Notes: AL means Action Level. LL means Limit Level. Bold means AL exceedances. Bold with underline means LL exceedances. Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4 Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA						



**Possible reason for Action and Limit Level Non-compliance:**


On 20 September 2017, three AL exceedances of DO at SR6 and SR10A were recorded during mid-flood tide, two LL exceedances of DO at SR10A and SR10B(N) were recorded during mid-flood tide and one AL exceedance of SS at SR6 was recorded during mid-flood tide.



As confirmed by the Contractor, there were no marine transportation and marine-based work on 20 September 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau  


Title : ET Leader

Date : 11 October 2017

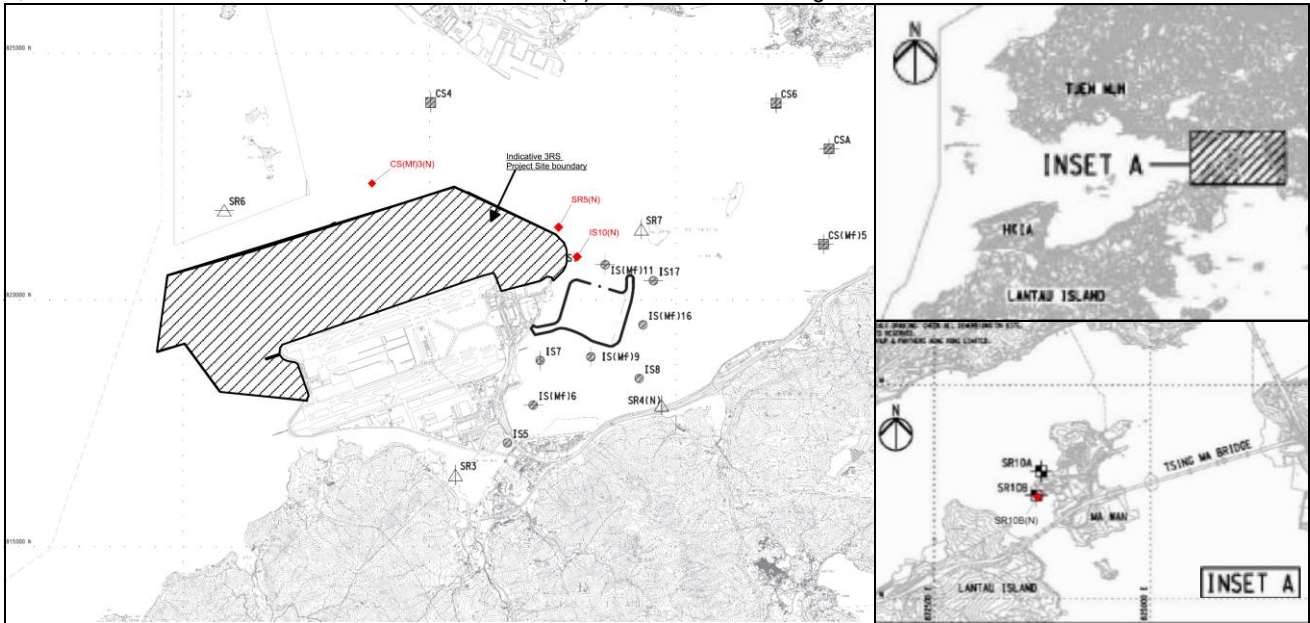
Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20170922DO_v1	
Date of Notification: 27 September 2017				Date of Investigation Report: 11 October 2017		
Works Inspected: Data collected from water sampling works on 22 September 2017 and the results were issued on 26 September 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: Dissolved Oxygen (DO)/ <del>Suspended Solid (SS)/ Turbidity (TURB)</del>						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	IS8	Surface and Middle	Surface and Middle 5.0 Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ) Bottom 3.6	5.2	<b>4.8</b>
	IS(Mf)9	Surface and Middle			5.3	<b>4.9</b>
	IS10(N)	Surface and Middle			<b>4.8</b>	<b>4.8</b>
		Bottom			<b>4.6</b>	4.8
	IS(Mf)11	Surface and Middle			<b>4.7</b>	<b>4.9</b>
	IS(Mf)16	Surface and Middle			5.1	<b>4.8</b>
	IS17	Surface and Middle			5.0	<b>4.8</b>
	SR3	Surface and Middle			<b>4.9</b>	5.0
	SR4(N)	Surface and Middle			5.2	<b>4.8</b>
	SR5(N)	Surface and Middle			<b>4.9</b>	<b>4.8</b>
	SR6	Surface and Middle			<b>4.8</b>	<b>4.8</b>
	SR7	Surface and Middle			5.0	<b>4.8</b>
	SR10A	Surface and Middle			<b>4.9</b>	<b>4.7</b>
	SR10B(N)	Surface and Middle			<b>4.8</b>	<b>4.6</b>
Bottom		4.9	<b>4.5</b>			

Notes:  
AL means Action Level.  
LL means Limit Level.  
**Bold** means AL exceedances.  
**Bold with underline** means LL exceedances.

**Possible reason for Action and Limit Level Non-compliance:**

On 22 September 2017, six AL exceedances of DO at IS10(N), IS(Mf)11, SR3, SR5(N) and SR6 were recorded during mid-ebb tide, two LL exceedances of DO at SR10A and SR10B(N) were recorded during mid-ebb tide. Eleven AL exceedances of DO at IS8, IS(Mf)9, IS10(N), IS(Mf)11, IS(Mf)16, IS17, SR4(N), SR5(N), SR6, SR7 and SR10B(N) were recorded during mid-flood tide, two LL exceedances of DO at SR10A and SR10B(N) were recorded during mid-flood tide.



As confirmed by the Contractor, there were no marine transportation and marine-based work on 22 September 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau Title : ET Leader

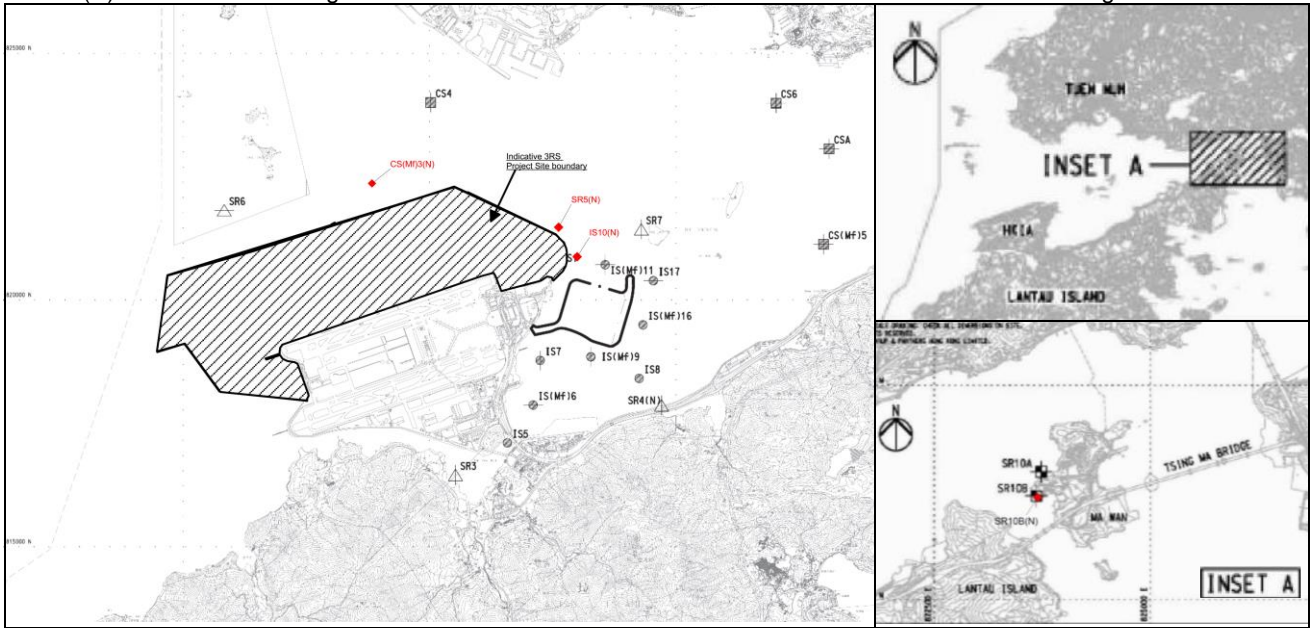


Date : 11 October 2017

Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20170925DO_SS_v1	
Date of Notification: 3 October 2017			Date of Investigation Report: 11 October 2017			
Works Inspected: Data collected from water sampling works on 25 September 2017 and the results were issued on 6 October 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: Dissolved Oxygen (DO)/ Suspended Solid (SS)/ Turbidity (TURB)						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	SR10B(N)	Surface and Middle	Surface and Middle 5.0 Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ) Bottom 3.6	5.1	<u>4.7</u>
		Bottom			5.0	4.6
SS	IS8	Depth Average	23.5 and 120% (i.e. 7.3 for mid-ebb/9.1 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 7.9 for mid-ebb/9.8 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	11.3	30.4
Notes: AL means Action Level. LL means Limit Level. Bold means AL exceedances. Bold with underline means LL exceedances. Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4 Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA						

On 25 September 2017, one AL exceedance of DO at SR10B(N) was recorded during mid-flood tide, one LL exceedance of DO at SR10B(N) was recorded during mid-flood tide and one AL exceedance of SS at IS8 was recorded during mid-flood tide..



**Actions taken/ to be taken:**

As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau

Title : ET Leader

Date : 11 October 2017

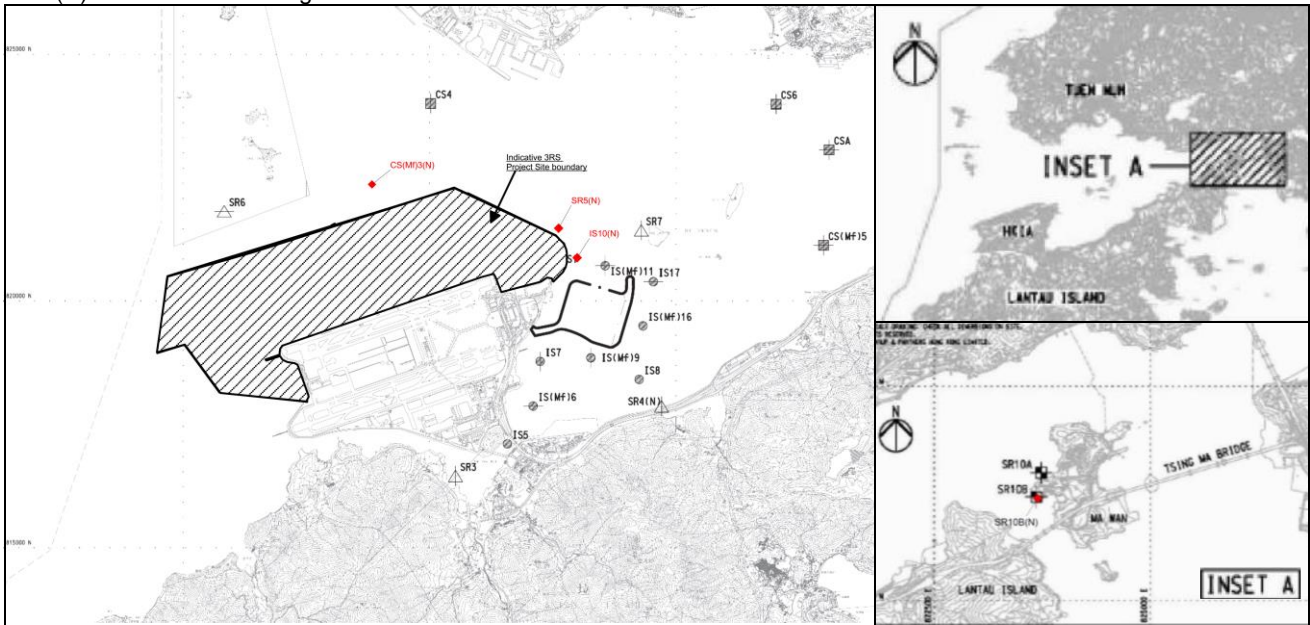
Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances						Notification No.: 20170927DO_v1
Date of Notification: 4 October 2017				Date of Investigation Report: 10 October 2017		
Works Inspected: Data collected from water sampling works on 27 September 2017 and the results were issued on 3 October 2017						
Monitoring Location: Water Quality Monitoring Station						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	IS10(N)	Bottom	Surface and Middle 5.0 Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ) Bottom 3.6	4.6	5.0
DO	IS17	Bottom			4.6	4.8
DO	SR5(N)	Bottom			4.6	5.0
DO	SR10A	Bottom			5.3	4.6
DO	SR10B(N)	Surface and Middle			5.0	4.7
		Bottom			4.4	4.4
Notes: AL means Action Level. LL means Limit Level. Bold means AL exceedances. Bold with underline means LL exceedances.						



**Possible reason for Action and Limit Level Non-compliance:**

On 27 September 2017, four AL exceedances of DO at IS10(N), IS17, SR5(N) and SR10B(N) were recorded during mid-ebb tide. Two AL exceedance of DO at SR10A and SR10B(N) were recorded during mid-flood tide, one LL exceedance of DO at SR10B(N) was recorded during mid-flood tide.



As confirmed by the Contractor, there were no marine transportation and marine-based work on 27 September 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau

Title : ET Leader

Date : 10 October 2017

Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 -

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Boundary Crossing Facilities – Passenger Clearance Building

Notifications of Environmental Quality Limits Exceedances

Notification No.: 20170929DO\_v3

Date of Notification: 9 October 2017

Date of Investigation Report: 17 October 2017

Works Inspected:

Data collected from water sampling works on 29 September 2017 and the results were issued on 6 October 2017

Monitoring Location:

Water Quality Monitoring Station

Parameter:

Dissolved Oxygen (DO)/ ~~Suspended Solid (SS)~~/ ~~Turbidity (TURB)~~

Action & Limit Level (AL & LL) / Measured Level:

PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	IS5	Bottom	Surface and Middle 5.0 Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ) Bottom 3.6	4.8	<b>4.4</b>
	IS7	Bottom			<b>4.3</b>	15.0*
	IS8	Bottom			<b>4.4</b>	5.7
	IS10(N)	Surface and Middle			<b>4.8</b>	6.2
		Bottom			<b>4.2</b>	<b>4.2</b>
	IS(Mf)11	Bottom			<b>4.6</b>	<b>4.1</b>
	IS(Mf)16	Bottom			<b>4.4</b>	5.5
	IS17	Bottom			4.7	<b>4.2</b>
	SR5(N)	Bottom			<b>4.3</b>	<b>4.2</b>
SR10B(N)	Bottom		<b>4.5</b>	5.0		

Notes:

AL means Action Level.

LL means Limit Level.

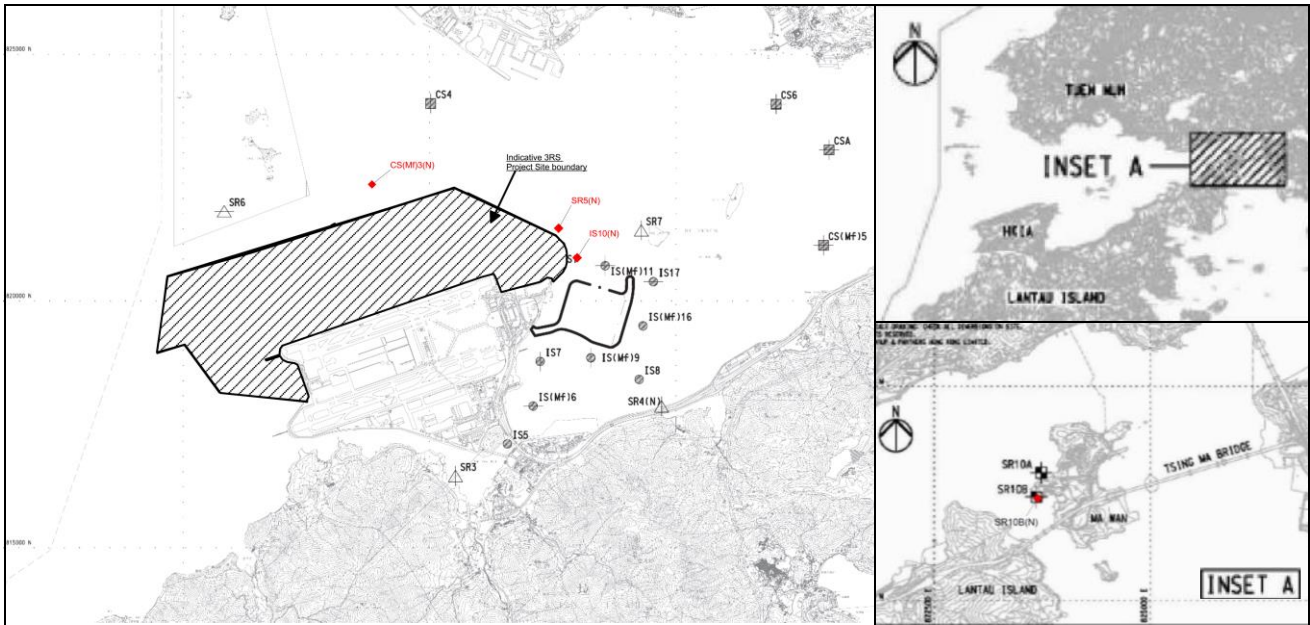
**Bold** means AL exceedances.

**Bold with underline** means LL exceedances.

\* Red tide was observed by water sampling team near WQM stations SR3, IS5, IS(Mf)6, IS7 and IS(Mf)6 during mid-flood tide on 29 September 2017.

**Possible reason for Action and Limit Level Non-compliance:**

On 29 September 2017, eight AL exceedances of DO at IS7, IS8, IS10(N), IS(Mf)11, IS(Mf)16, SR5(N) and SR10B(N) were recorded during mid-ebb tide. Five AL exceedance of DO at IS5, IS10(N), IS(Mf)11, IS17 and SR5(N) were recorded during mid-flood tide.



As confirmed by the Contractor, there were no marine transportation and marine-based work on 29 September 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau

Title : ET Leader

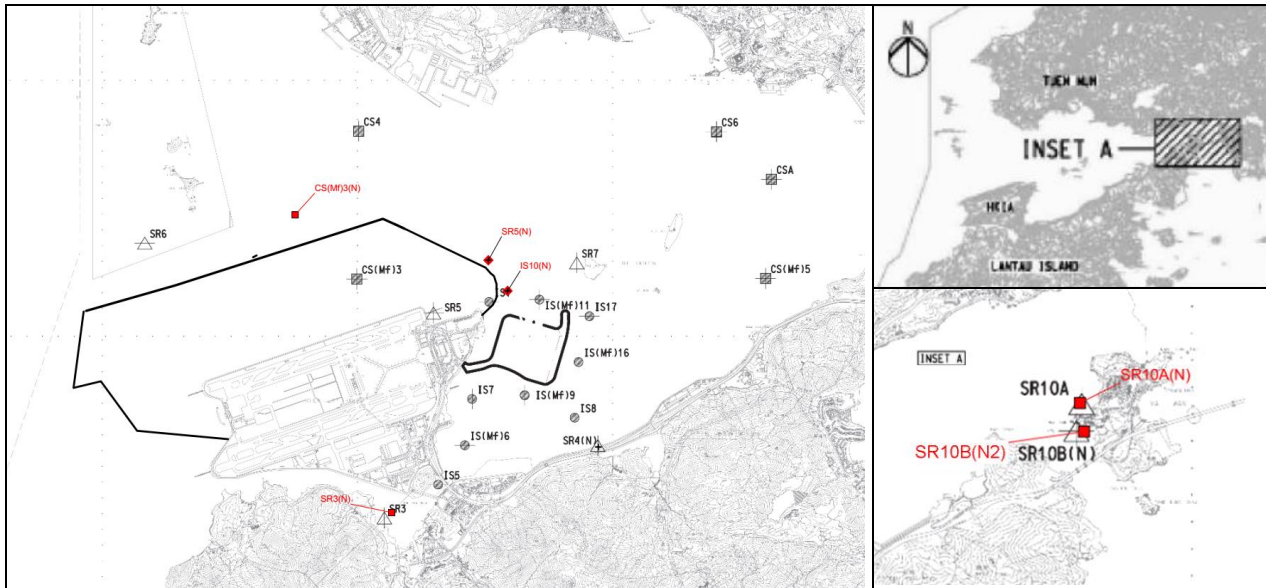
Date : 17 October 2017

Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20171002DO_v1	
Date of Notification: 10 October 2017			Date of Investigation Report: 20 October 2017			
Works Inspected: Data collected from water sampling works on 2 October 2017 and the results were issued on 10 October 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: Dissolved Oxygen (DO)/ <del>Suspended Solid (SS)</del> / <del>Turbidity (TURB)</del>						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	SR10A*	Bottom	Surface and Middle 5.0 Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ) Bottom 3.6	4.6	4.5
	SR10B(N)*	Surface and Middle			5.4	<u>4.7</u>
	SR10B(N)*	Bottom			5.1	4.6
Notes: AL means Action Level. LL means Limit Level. <b>Bold</b> means AL exceedances. <b><u>Bold with underline</u></b> means LL exceedances. * Monitoring stations SR3, SR10A and SR10B(N) were not available for water sampling due to safety reason, the monitoring stations were changed to tentative coordination. (i.e. SR3(N): E810689 N816591, SR10A(N): E823644 N823484 and SR10B(N2): E823689 N823159)						

**Possible reason for Action and Limit Level Non-compliance:**


On 2 October 2017, one AL exceedance of DO at SR10A was recorded during mid-ebb tide, two AL exceedances of DO at SR10A and SR10B(N) were recorded during mid-flood tide and one LL exceedance of DO at SR10B(N) was recorded during mid-flood tide.



As confirmed by the Contractor, there were no marine transportation and marine-based work on 2 October 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau  


Title : ET Leader

Date : 20 October 2017

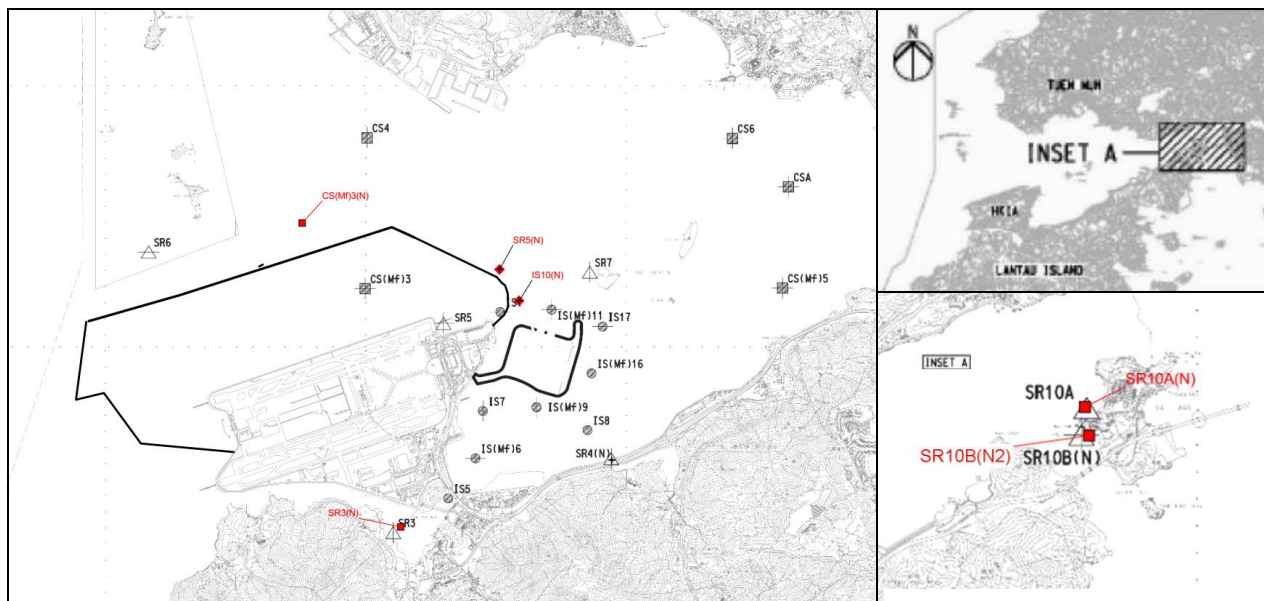
Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20171004DO_v1	
Date of Notification: 12 October 2017			Date of Investigation Report: 20 October 2017			
Works Inspected: Data collected from water sampling works on 4 October 2017 and the results were issued on 9 October 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: Dissolved Oxygen (DO)/ <del>Suspended Solid (SS)</del> / Turbidity (TURB)						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	SR10A*#	Surface and Middle	Surface and Middle 5.0 Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ) Bottom 3.6	<u>4.7</u>	<u>4.5</u>
	SR10A*#	Bottom			4.6	4.3
	SR10B(N)*	Surface and Middle			<u>4.8</u>	<u>4.5</u>
	SR10B(N)*	Bottom			4.9	4.5
Notes: AL means Action Level. LL means Limit Level. Bold means AL exceedances. <u>Bold with underline</u> means LL exceedances. * Monitoring stations SR3, SR10A and SR10B(N) were not available for water sampling due to safety reason, the monitoring stations were changed to tentative coordination. (i.e. SR3(N): E810689 N816591, SR10A(N): E823644 N823484 and SR10B(N2): E823689 N823159) # Location was changed due to fishing net installed in the vicinity (22°21.1165'N; 114°03.1185'E)						



**Possible reason for Action and Limit Level Non-compliance:**

On 4 October 2017, one AL exceedance of DO at SR10A was recorded during mid-ebb tide, two AL exceedances of DO at SR10A and SR10B(N) were recorded during mid-flood tide, two LL exceedances of DO at SR10A and SR10B(N) were recorded during mid-ebb tide and two LL exceedances of DO at SR10A and SR10B(N) were recorded during mid-flood tide.



As confirmed by the Contractor, there were no marine transportation and marine-based work on 4 October 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau

Title : ET Leader



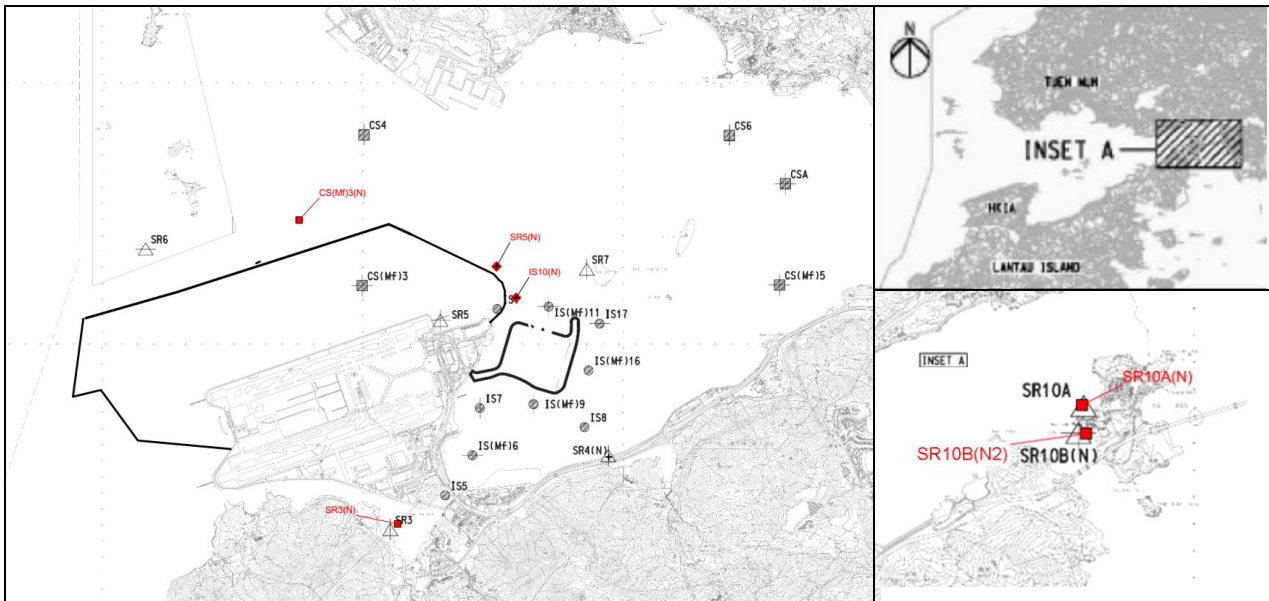
Date : 20 October 2017

Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20171006DO_v2	
Date of Notification: 11 October 2017			Date of Investigation Report: 26 October 2017			
Works Inspected: Data collected from water sampling works on 6 October 2017 and the results were issued on 11 October 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: Dissolved Oxygen (DO)/ <del>Suspended Solid (SS)</del> / <del>Turbidity (TURB)</del>						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	SR10B(N)*	Surface and Middle	Surface and Middle 5.0	Surface and Middle 4.2 (except 5 mg/L for FCZ)	<b><u>4.9</u></b>	<b><u>4.5</u></b>
	SR10B(N)*	Bottom	Bottom 4.7	Bottom 3.6	5.0	<b>4.6</b>
Notes: AL means Action Level. LL means Limit Level. <b>Bold</b> means AL exceedances. <b><u>Bold with underline</u></b> means LL exceedances. * Monitoring stations SR3, SR10A and SR10B(N) were not available for water sampling due to safety reason, the monitoring stations were changed to tentative coordination. (i.e. SR3(N): E810689 N816591, SR10A(N): E823644 N823484 and SR10B(N2): E823689 N823159)						

**Possible reason for Action and Limit Level Non-compliance:**


On 6 October 2017, one AL exceedance of DO at SR10B(N) was recorded during mid-flood tide, one LL exceedance of DO at SR10B(N) was recorded during mid-ebb tide and one LL exceedance of DO at SR10B(N) was recorded during mid-flood tide.



As confirmed by the Contractor, there were no marine transportation and marine-based work on 6 October 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

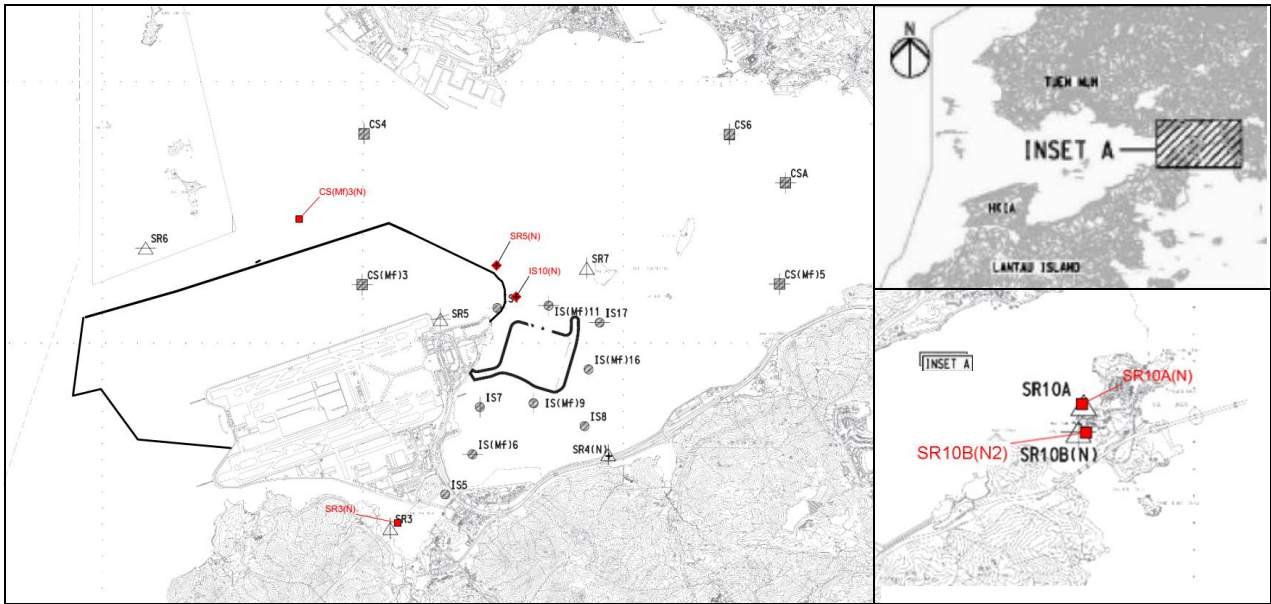
As the exceedances were not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Reviewed by : Keith Chau Title : ET Leader  
 Date : 26 October 2017

Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances						Notification No.: 20171009DO_v1
Date of Notification: 12 October 2017				Date of Investigation Report: 26 October 2017		
Works Inspected: Data collected from water sampling works on 9 October 2017 and the results were issued on 12 October 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: Dissolved Oxygen (DO)/ <del>Suspended Solid (SS)</del> / <del>Turbidity (TURB)</del>						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
DO	SR10B(N)*	Surface and Middle	Surface and Middle 5.0 Bottom 4.7	Surface and Middle 4.2 (except 5 mg/L for FCZ) Bottom 3.6	5.2	<b><u>4.8</u></b>
Notes: AL means Action Level. LL means Limit Level. <b>Bold</b> means AL exceedances. <b><u>Bold with underline</u></b> means LL exceedances. * Monitoring stations SR3, SR10A and SR10B(N) were not available for water sampling due to safety reason, the monitoring stations were changed to tentative coordination. (i.e. SR3(N): E810689 N816591, SR10A(N): E823644 N823484 and SR10B(N2): E823689 N823159)						

On 9 October 2017, one LL exceedance of DO at SR10B(N) was recorded during mid-flood tide.



**Actions taken/ to be taken:**

As the exceedance was not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Prepared by: Evan Wong

Title: Environmental Team Representative

Signature: 

Date: 26 October 2017

Checked by: Keith Chau

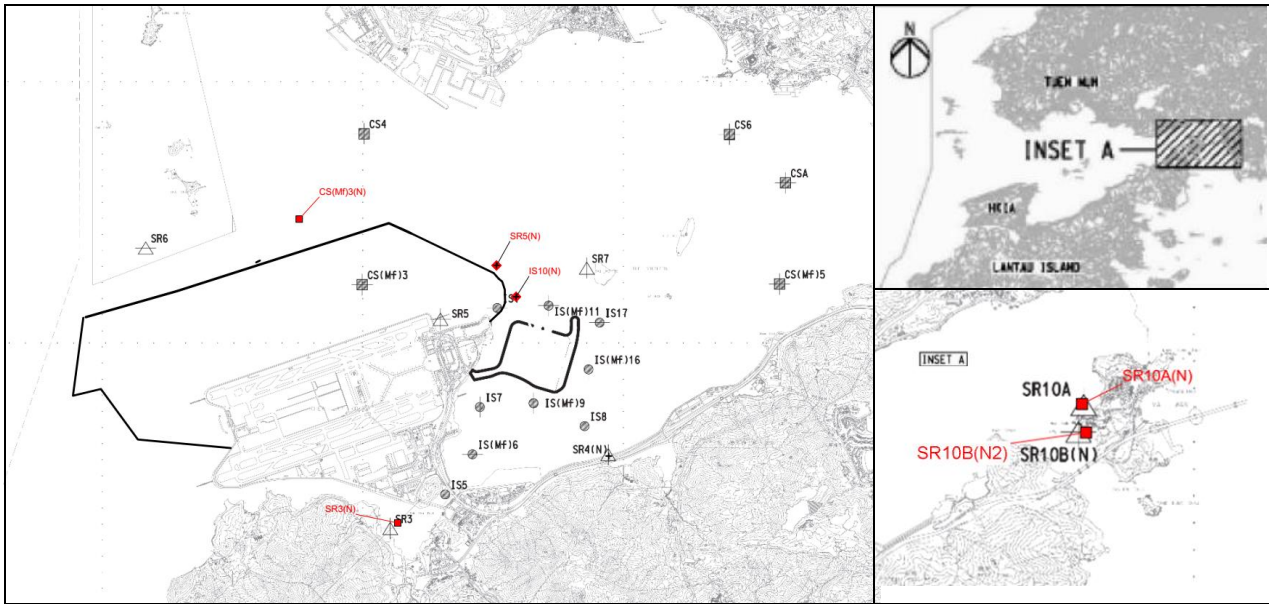
Title: Environmental Team Leader

Signature: 

Date: 26 October 2017

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances						Notification No.: 20171018SS
Date of Notification: 27 October 2017				Date of Investigation Report: 30 October 2017		
Works Inspected: Data collected from water sampling works on 18 October 2017 and the results were issued on 26 October 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: <del>Dissolved Oxygen (DO)</del> / Suspended Solid (SS)/ <del>Turbidity (TURB)</del>						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
SS	SR5(N)	Depth Average	23.5 and 120% (i.e. 10.6 for mid-ebb/23.9 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 11.5 for mid-ebb/25.9 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	9.5	<b>30.1</b>
Notes: AL means Action Level. LL means Limit Level. <b>Bold</b> means AL exceedances. <b><u>Bold with underline</u></b> means LL exceedances. Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4 Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA						

On 18 October 2017, one AL exceedance of SS at SR5(N) was recorded during mid-flood tide.



**Actions taken/ to be taken:**

As the exceedance was not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Prepared by: Evan Wong Title: Environmental Team Representative

Signature:  Date: 30 October 2017

Checked by: Keith Chau Title: Environmental Team Leader

Signature:  Date: 30 October 2017

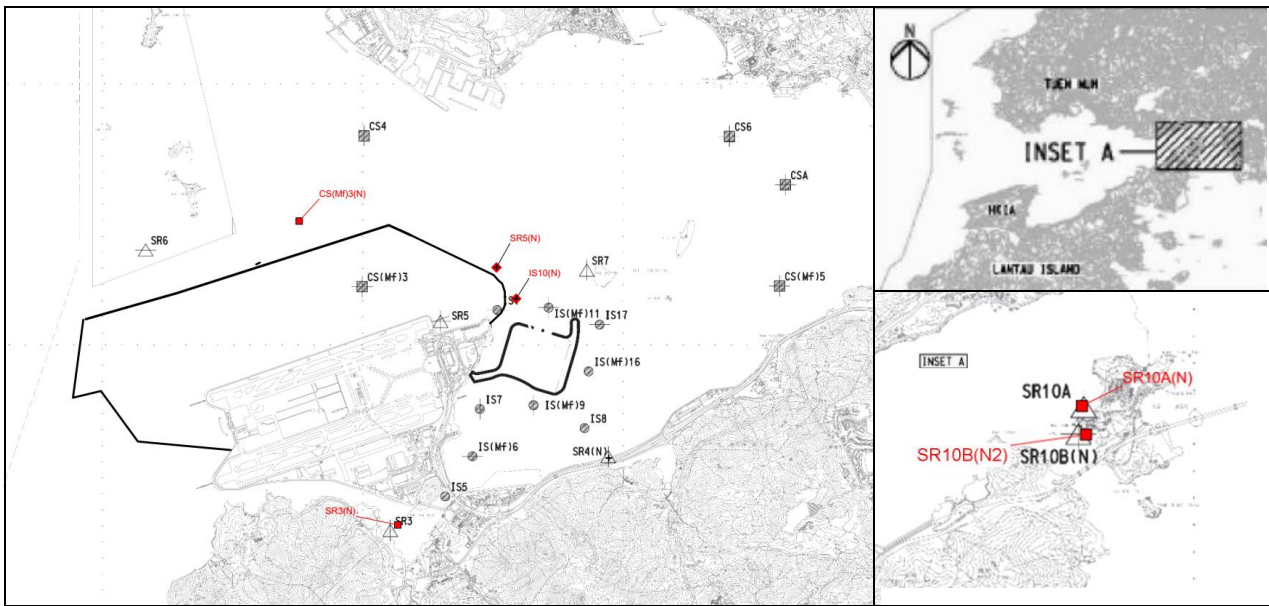
Copied to : Contractor, Engineer Representative and IEC/ENPO



<b>Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances</b>							Notification No.: 20171020SS
<b>Date of Notification:</b> 31 October 2017				<b>Date of Investigation Report:</b> 3 November 2017			
<b>Works Inspected:</b> Data collected from water sampling works on 20 October 2017 and the results were issued on 30 October 2017							
<b>Monitoring Location:</b> Water Quality Monitoring Station							
<b>Parameter:</b> <del>Dissolved Oxygen (DO)</del> / Suspended Solid (SS)/ <del>Turbidity (TURB)</del>							
<b>Action &amp; Limit Level (AL &amp; LL) / Measured Level:</b>							
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)	
SS	IS(Mf)11	Depth Average	23.5 and 120% (i.e. 20.8 for mid-ebb/20.1 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 22.6 for mid-ebb/21.8 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	11.9	<b>26.1</b>	
	SR5(N)				8.0	<b>24.4</b>	
	SR7				14.9	<b>28.3</b>	
Notes: AL means Action Level. LL means Limit Level. <b>Bold</b> means AL exceedances. <b><u>Bold with underline</u></b> means LL exceedances. Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4 Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA							

**Possible reason for Action / Limit Level Non-compliance:**



On 20 October 2017, three AL exceedances of SS at IS(Mf)11, SR5(N) and SR7 were recorded during mid-flood tide.



As confirmed by the Contractor, there was no marine transportation and marine-based work on 20 October 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedance was not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Prepared by:	<u>Evan Wong</u>	Title:	<u>Environmental Team Representative</u>
Signature:	<u></u>	Date:	<u>3 November 2017</u>
Checked by:	<u>Keith Chau</u>	Title:	<u>Environmental Team Leader</u>
Signature:	<u></u>	Date:	<u>3 November 2017</u>
Copied to	: Contractor, Engineer Representative and IEC/ENPO		

Contract No. HY/2013/01 -  
Hong Kong- Zhuhai- Macao Bridge  
Hong Kong Boundary Crossing Facilities – Passenger Clearance Building  
Notifications of Environmental Quality Limits Exceedances

Notification No.: 20171023SS

Date of Notification: 1 November 2017

Date of Investigation Report: 6 November 2017

Works Inspected: Data collected from water sampling works on 23 October 2017 and the results were issued on 1 November 2017

Monitoring Location: Water Quality Monitoring Station

Parameter: ~~Dissolved Oxygen (DO)~~/ Suspended Solid (SS)/~~Turbidity (TURB)~~

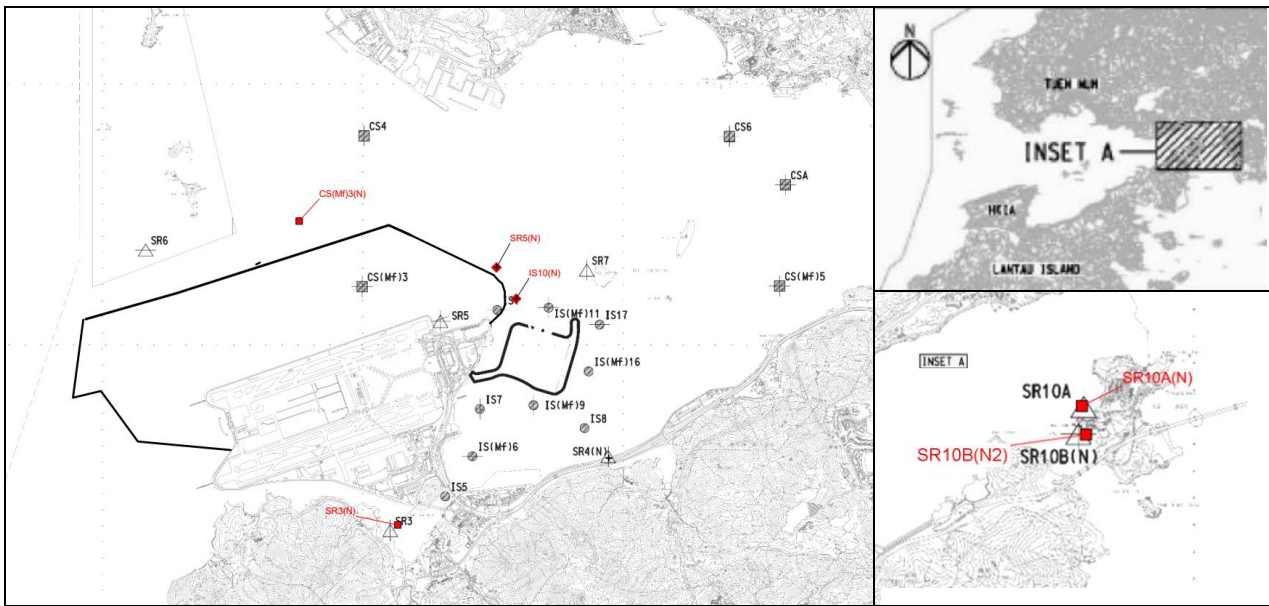
Action & Limit Level (AL & LL) / Measured Level:

PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
SS	SR5(N)	Depth Average	23.5 and 120% (i.e. 14.8 for mid-ebb/16.9 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 16.0 for mid-ebb/18.3 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	10.4	<b>26.3</b>

Notes:  
AL means Action Level.  
LL means Limit Level.  
**Bold** means AL exceedances.  
**Bold with underline** means LL exceedances.  
Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4  
Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA

**Possible reason for Action / Limit Level Non-compliance:**

On 23 October 2017, one AL exceedance of SS at SR5(N) was recorded during mid-flood tide.



As confirmed by the Contractor, there was no marine transportation and marine-based work on 23 October 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedance was not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Prepared by: Evan Wong Title: Environmental Team Representative

Signature:  Date: 6 November 2017

Checked by: Keith Chau Title: Environmental Team Leader

Signature:  Date: 6 November 2017

Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 -  
Hong Kong- Zhuhai- Macao Bridge  
Hong Kong Boundary Crossing Facilities – Passenger Clearance Building  
Notifications of Environmental Quality Limits Exceedances

Notification No.: 20171103SS

Date of Notification: 10 November 2017

Date of Investigation Report: 14 November 2017

Works Inspected: Data collected from water sampling works on 3 November 2017 and the results were issued on 10 November 2017

Monitoring Location: Water Quality Monitoring Station

Parameter: ~~Dissolved Oxygen (DO)~~/ Suspended Solid (SS)/~~Turbidity (TURB)~~

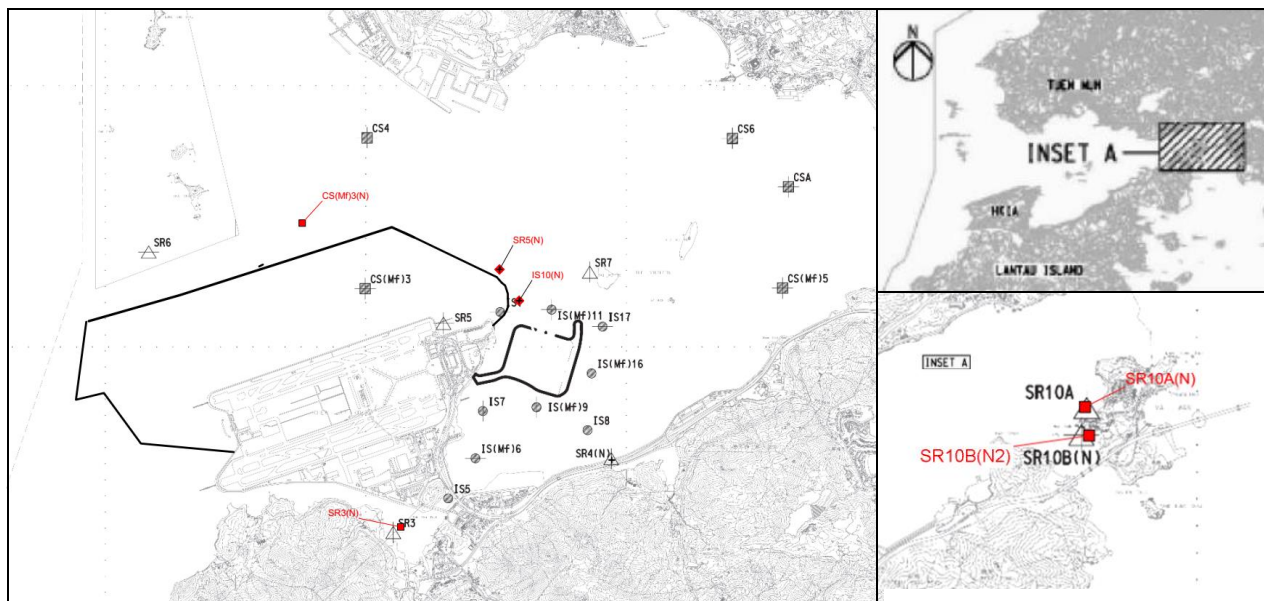
Action & Limit Level (AL & LL) / Measured Level:

PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
SS	IS(Mf)11	Depth Average	23.5 and 120% (i.e. 15.7 for mid-ebb/13.8 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 17.0 for mid-ebb/14.9 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	10.8	26.6
	SR5(N)				14.8	37.8
	SR6				25.9	14.1
	SR7				13.6	33.7

Notes:  
AL means Action Level.  
LL means Limit Level.  
Bold means AL exceedances.  
Bold with underline means LL exceedances.  
Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4  
Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA

**Possible reason for Action / Limit Level Non-compliance:**

On 3 November 2017, one AL exceedance of SS at SR6 was recorded during mid-ebb tide. Two AL exceedances of SS at IS(Mf)11 and SR7 were recorded during mid-flood tide. One LL exceedance of SS at SR5(N) was recorded during mid-flood tide.



As confirmed by the Contractor, there was no marine transportation and marine-based work on 3 November 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedance was not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Prepared by: Evan Wong

Title: Environmental Team Representative

Signature: 

Date: 14 November 2017

Checked by: Keith Chau

Title: Environmental Team Leader

Signature: 

Date: 14 November 2017

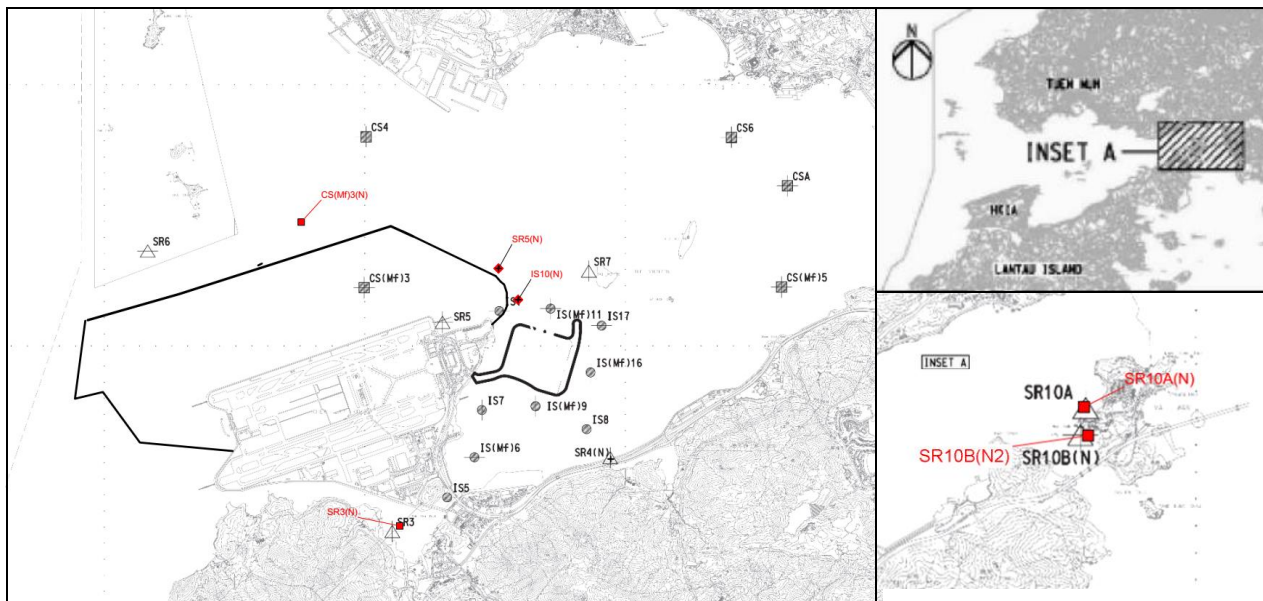
Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20171106SS	
Date of Notification: 15 November 2017			Date of Investigation Report: 16 November 2017			
Works Inspected: Data collected from water sampling works on 6 November 2017 and the results were issued on 14 November 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: <del>Dissolved Oxygen (DO)</del> / Suspended Solid (SS)/ <del>Turbidity (TURB)</del>						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
SS	IS(Mf)6	Depth Average	23.5 and 120% (i.e. 15.9 for mid-ebb/19.8 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 17.2 for mid-ebb/21.4 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	10.0	27.2
	IS(Mf)16				11.5	25.1
	SR7				10.3	25.5
	SR10A				15.0	26.0
	SR10B(N)				7.9	25.2
Notes: AL means Action Level. LL means Limit Level. Bold means AL exceedances. Bold with underline means LL exceedances. Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4 Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA						



**Possible reason for Action / Limit Level Non-compliance:**

On 6 November 2017, five AL exceedances of SS at IS(Mf)6, IS(Mf)16, SR7, SR10A and SR10B(N) were recorded during mid-flood tide.



As confirmed by the Contractor, there was no marine transportation and marine-based work on 6 November 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedance was not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Prepared by: Evan Wong

Title: Environmental Team Representative

Signature: 

Date: 16 November 2017

Checked by: Keith Chau

Title: Environmental Team Leader

Signature: 

Date: 16 November 2017

Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 -  
Hong Kong- Zhuhai- Macao Bridge  
Hong Kong Boundary Crossing Facilities – Passenger Clearance Building  
Notifications of Environmental Quality Limits Exceedances

Notification No.: 20171108SS

Date of Notification: 16 November 2017

Date of Investigation Report: 20 November 2017

Works Inspected: Data collected from water sampling works on 8 November 2017 and the results were issued on 16 November 2017

Monitoring Location: Water Quality Monitoring Station

Parameter: ~~Dissolved Oxygen (DO)~~/ Suspended Solid (SS)/ ~~Turbidity (TURB)~~

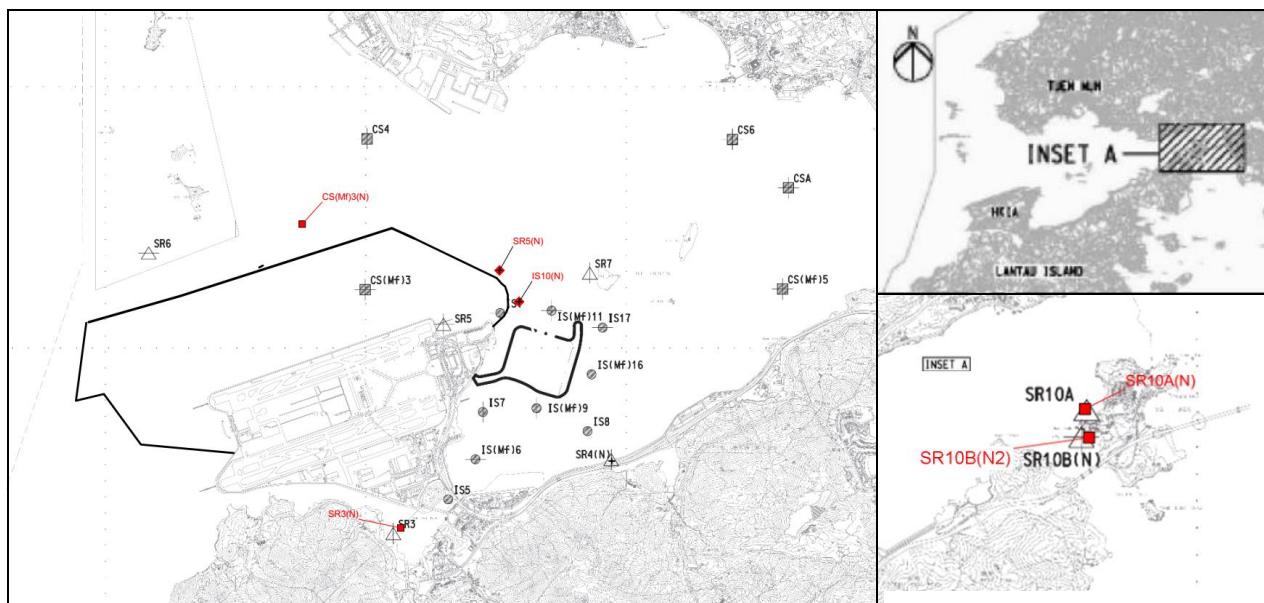
Action & Limit Level (AL & LL) / Measured Level:

PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
SS	IS(Mf)11	Depth Average	23.5 and 120% (i.e. 19.7 for mid-ebb/13.2 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 21.3 for mid-ebb/14.3 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	10.2	<b>24.3</b>
	SR4(N)				18.5	<b><u>35.1</u></b>
	SR5(N)				14.9	<b><u>38.2</u></b>
	SR6				<b>27.9</b>	18.9

Notes:  
AL means Action Level.  
LL means Limit Level.  
**Bold** means AL exceedances.  
**Bold with underline** means LL exceedances.  
Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4  
Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA

**Possible reason for Action / Limit Level Non-compliance:**

On 8 November 2017, one AL exceedance of SS at IS(Mf)11 was recorded during mid-flood tide. One AL exceedance of SS at SR6 was recorded during mid-ebb tide. Two LL exceedances of SS at SR4(N) and SR5(N) were recorded during mid-flood tide.



As confirmed by the Contractor, there was no marine transportation and marine-based work on 8 November 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedance was not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Prepared by: Evan Wong Title: Environmental Team Representative

Signature:  Date: 20 November 2017

Checked by: Keith Chau Title: Environmental Team Leader

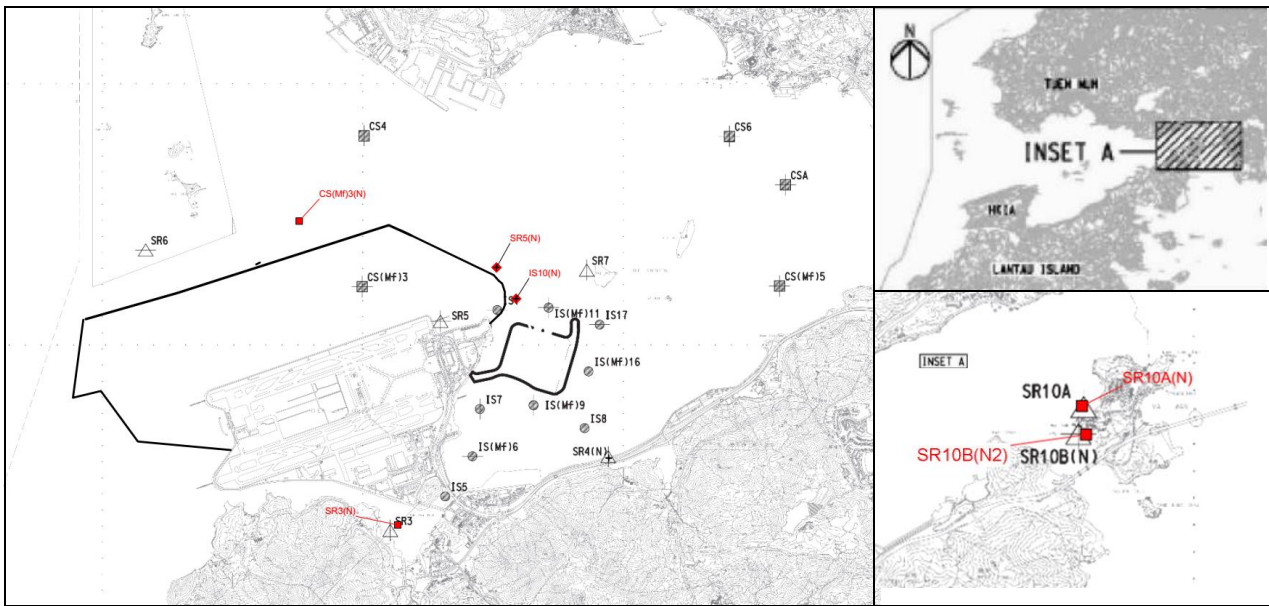
Signature:  Date: 20 November 2017

Copied to : Contractor, Engineer Representative and IEC/ENPO

<b>Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances</b>							Notification No.: 20171113SS
<b>Date of Notification:</b> 22 November 2017				<b>Date of Investigation Report:</b> 24 November 2017			
<b>Works Inspected:</b> Data collected from water sampling works on 13 November 2017 and the results were issued on 22 November 2017							
<b>Monitoring Location:</b> Water Quality Monitoring Station							
<b>Parameter:</b> <del>Dissolved Oxygen (DO)</del> / <del>Suspended Solid (SS)</del> / <del>Turbidity (TURB)</del>							
<b>Action &amp; Limit Level (AL &amp; LL) / Measured Level:</b>							
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)	
SS	IS8	Depth Average	23.5 and 120% (i.e. 7.6 for mid-ebb/9.1 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 8.2 for mid-ebb/9.9 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	16.6	<b>29.1</b>	
Notes: AL means Action Level. LL means Limit Level. <b>Bold</b> means AL exceedances. <b><u>Bold with underline</u></b> means LL exceedances. Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4 Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA							

**Possible reason for Action / Limit Level Non-compliance:**



On 13 November 2017, one AL exceedance of SS at IS8 was recorded during mid-flood tide.



As confirmed by the Contractor, there was no marine transportation and marine-based work on 13 November 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

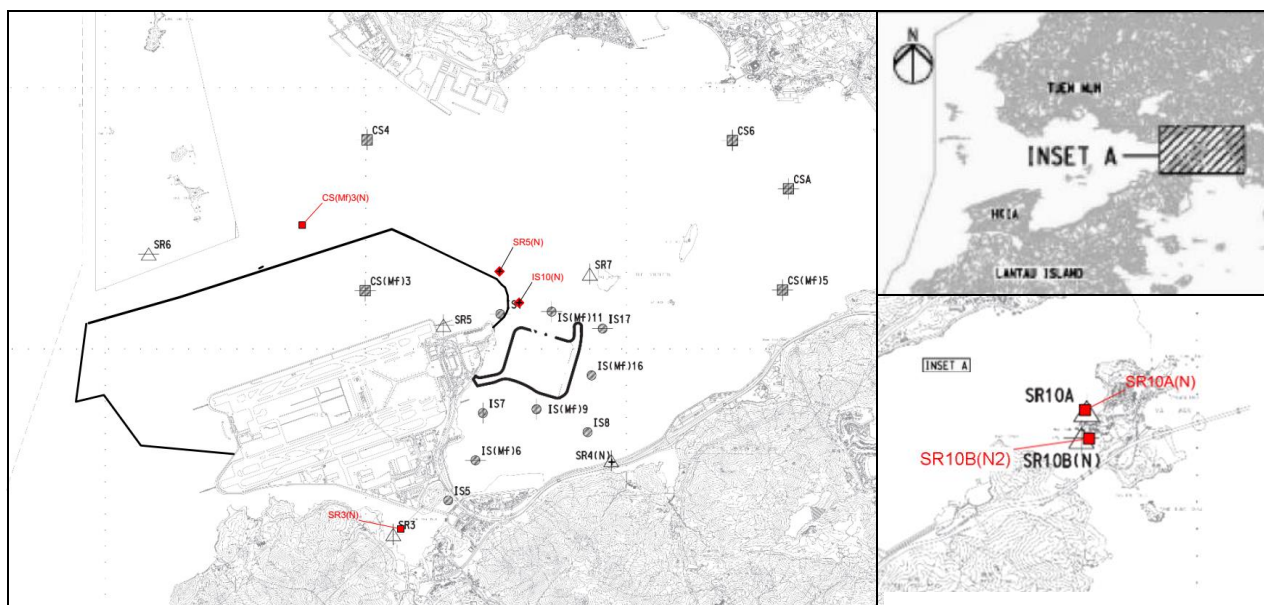
As the exceedance was not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Prepared by:	<u>Evan Wong</u>	Title:	<u>Environmental Team Representative</u>
Signature:	<u></u>	Date:	<u>24 November 2017</u>
Checked by:	<u>Keith Chau</u>	Title:	<u>Environmental Team Leader</u>
Signature:	<u></u>	Date:	<u>24 November 2017</u>
Copied to	: Contractor, Engineer Representative and IEC/ENPO		

<b>Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances</b>							Notification No.: 20171115SS
<b>Date of Notification:</b> 22 November 2017				<b>Date of Investigation Report:</b> 24 November 2017			
<b>Works Inspected:</b> Data collected from water sampling works on 15 November 2017 and the results were issued on 22 November 2017							
<b>Monitoring Location:</b> Water Quality Monitoring Station							
<b>Parameter:</b> <del>Dissolved Oxygen (DO)</del> / Suspended Solid (SS)/ <del>Turbidity (TURB)</del>							
<b>Action &amp; Limit Level (AL &amp; LL) / Measured Level:</b>							
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)	
SS	IS(Mf)6	Depth Average	23.5 and 120% (i.e. 8.4 for mid-ebb/5.5 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 9.1 for mid-ebb/6.0 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	8.9	<b>24.8</b>	
Notes: AL means Action Level. LL means Limit Level. <b>Bold</b> means AL exceedances. <b><u>Bold with underline</u></b> means LL exceedances. Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4 Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA							

**Possible reason for Action / Limit Level Non-compliance:**

On 15 November 2017, one AL exceedance of SS at IS(Mf)6 was recorded during mid-flood tide.



As confirmed by the Contractor, there was no marine transportation and marine-based work on 15 November 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedance was not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Prepared by: Evan Wong Title: Environmental Team Representative

Signature:  Date: 24 November 2017

Checked by: Keith Chau Title: Environmental Team Leader

Signature:  Date: 24 November 2017

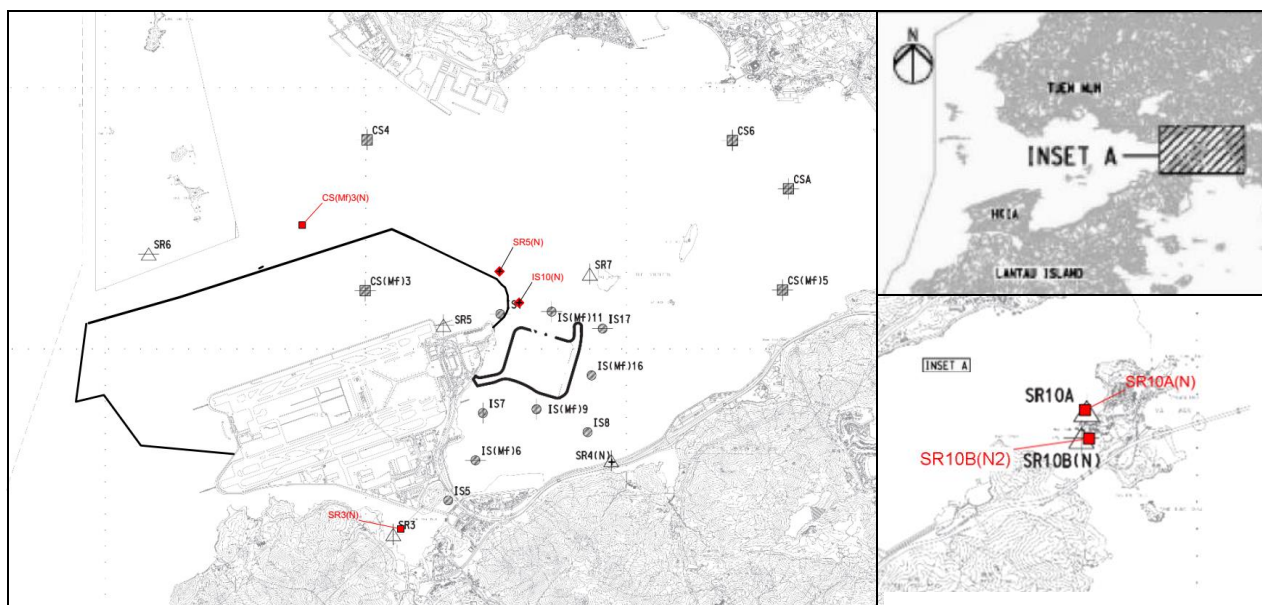
Copied to : Contractor, Engineer Representative and IEC/ENPO



<b>Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances</b>							Notification No.: 20171120SS
<b>Date of Notification:</b> 28 November 2017				<b>Date of Investigation Report:</b> 30 November 2017			
<b>Works Inspected:</b> Data collected from water sampling works on 20 November 2017 and the results were issued on 28 November 2017							
<b>Monitoring Location:</b> Water Quality Monitoring Station							
<b>Parameter:</b> <del>Dissolved Oxygen (DO)</del> / Suspended Solid (SS)/ <del>Turbidity (TURB)</del>							
<b>Action &amp; Limit Level (AL &amp; LL) / Measured Level:</b>							
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)	
SS	SR7	Depth Average	23.5 and 120% (i.e. 19.7 for mid-ebb/14.0 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 21.4 for mid-ebb/15.2 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	11.7	<b>24.1</b>	
Notes: AL means Action Level. LL means Limit Level. <b>Bold</b> means AL exceedances. <b><u>Bold with underline</u></b> means LL exceedances. Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4 Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA							

**Possible reason for Action / Limit Level Non-compliance:**



On 20 November 2017, one AL exceedance of SS at SR7 was recorded during mid-flood tide.



As confirmed by the Contractor, there was no marine transportation and marine-based work on 20 November 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

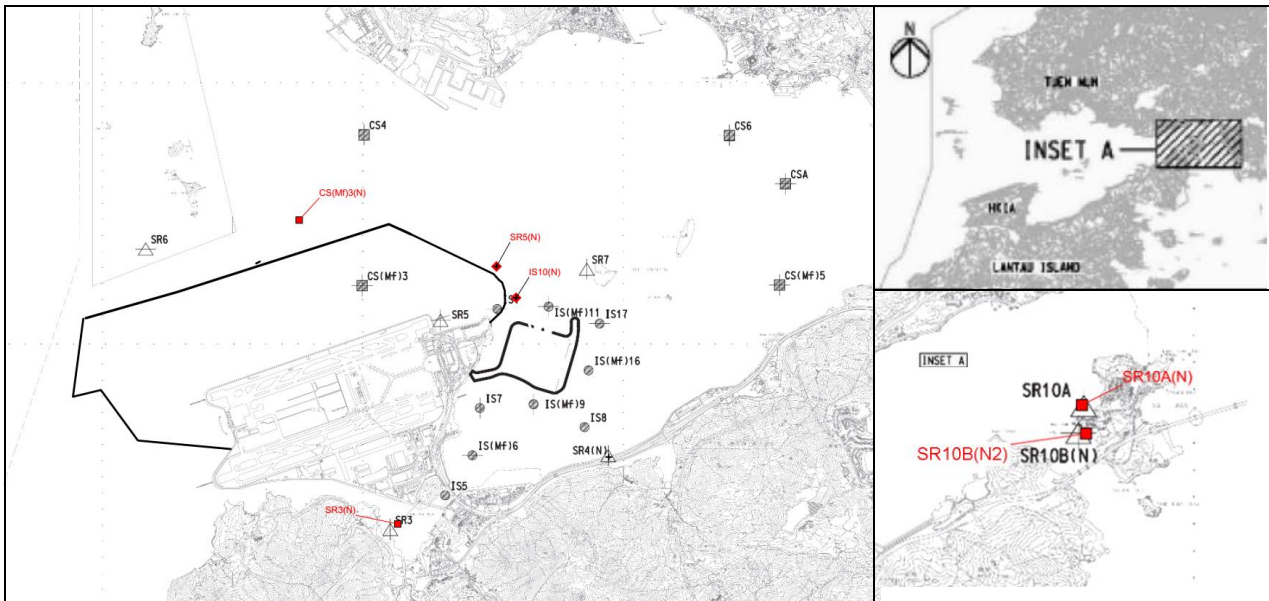
As the exceedance was not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Prepared by:	<u>Evan Wong</u>	Title:	<u>Environmental Team Representative</u>
Signature:	<u></u>	Date:	<u>30 November 2017</u>
Checked by:	<u>Keith Chau</u>	Title:	<u>Environmental Team Leader</u>
Signature:	<u></u>	Date:	<u>30 November 2017</u>
Copied to	: Contractor, Engineer Representative and IEC/ENPO		

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20171122SS	
Date of Notification: 30 November 2017			Date of Investigation Report: 6 December 2017			
Works Inspected: Data collected from water sampling works on 22 November 2017 and the results were issued on 29 November 2017						
Monitoring Location: Water Quality Monitoring Station						
Parameter: <del>Dissolved Oxygen (DO)</del> / Suspended Solid (SS)/ <del>Turbidity (TURB)</del>						
Action & Limit Level (AL & LL) / Measured Level:						
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)
SS	SR6	Depth Average	23.5 and 120% (i.e. 12.5 for mid-ebb/7.5 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 13.5 for mid-ebb/8.2 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	26.6	<u>36.1</u>
Notes: AL means Action Level. LL means Limit Level. <b>Bold</b> means AL exceedances. <b>Bold with underline</b> means LL exceedances. Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4 Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA						

**Possible reason for Action / Limit Level Non-compliance:**

On 22 November 2017, one AL exceedance of SS at SR6 was recorded during mid-ebb tide and one LL exceedance of SS at SR6 was recorded during mid-flood tide.



As confirmed by the Contractor, there was no marine transportation and marine-based work on 22 November 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedance was not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Prepared by: Evan Wong

Title: Environmental Team Representative

Signature: 

Date: 6 December 2017

Checked by: Keith Chau

Title: Environmental Team Leader

Signature: 

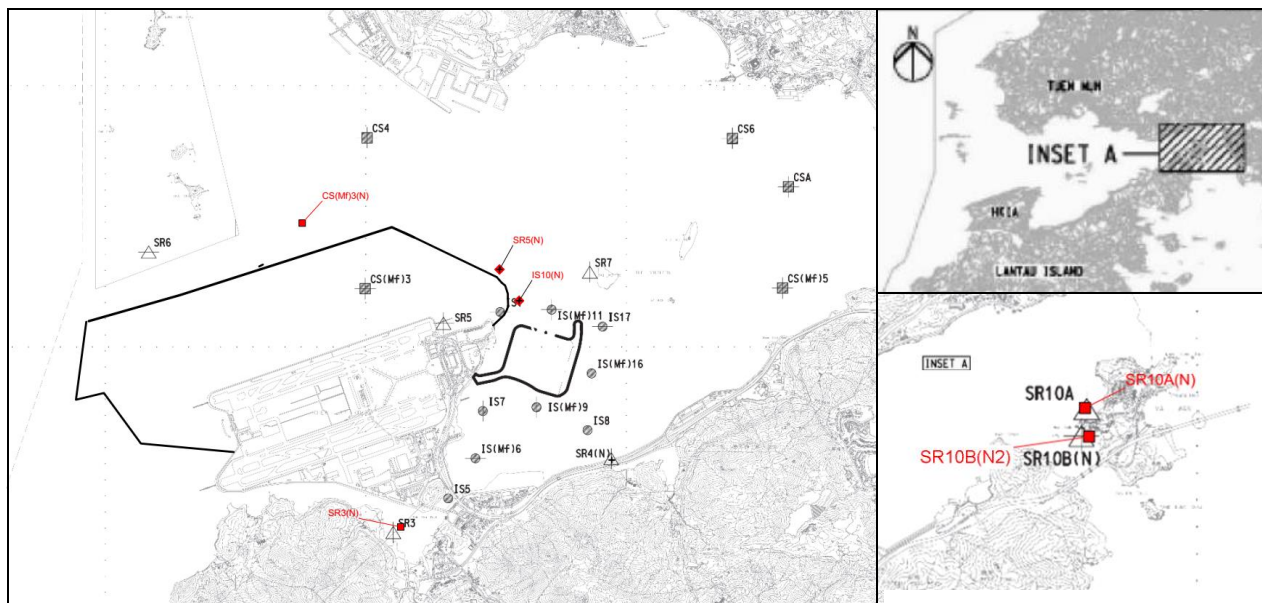
Date: 6 December 2017

Copied to : Contractor, Engineer Representative and IEC/ENPO

<b>Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances</b>							Notification No.: 20171124SS_v1
<b>Date of Notification:</b> 1 December 2017					<b>Date of Investigation Report:</b> 7 December 2017		
<b>Works Inspected:</b> Data collected from water sampling works on 24 November 2017 and the results were issued on 1 December 2017							
<b>Monitoring Location:</b> Water Quality Monitoring Station							
<b>Parameter:</b> <del>Dissolved Oxygen (DO)</del> / Suspended Solid (SS)/ <del>Turbidity (TURB)</del>							
<b>Action &amp; Limit Level (AL &amp; LL) / Measured Level:</b>							
PARAM	STATION	DEPTH	AL (mg/L)	LL (mg/L)	MEASURED AT MID-EBB TIDE (mg/L)	MEASURED AT MID-FLOOD TIDE (mg/L)	
SS	IS8	Depth Average	23.5 and 120% (i.e. 16.8 for mid-ebb/12.8 for mid-flood) of upstream control station's SS at the same tide of the same day	34.4 and 130% (i.e. 18.2 for mid-ebb/13.9 for mid-flood) of upstream control station's SS at the same tide of the same day and 10mg/L for WSD Seawater intakes	10.6	<b>29.9</b>	
Notes: AL means Action Level. LL means Limit Level. <b>Bold</b> means AL exceedances. <b><u>Bold with underline</u></b> means LL exceedances. Upstream control stations of mid-ebb tide: CS(Mf)3(N) and CS4 Upstream control stations of mid-flood tide: CS(Mf)5, CS6 and CSA							

**Possible reason for Action / Limit Level Non-compliance:**

On 24 November 2017, one AL exceedance of SS at IS8 was recorded during mid-flood tide.



As confirmed by the Contractor, there was no marine transportation and marine-based work on 24 November 2017. No site runoff within the Contract site has been observed. Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

As the exceedance was not related to the Contract, no immediate actions are required. However, the Contractor was also reminded to implement environmental mitigation measures in accordance with Environmental Mitigation Implementation Schedule.

Prepared by: Evan Wong Title: Environmental Team Representative

Signature:  Date: 7 December 2017

Checked by: Keith Chau Title: Environmental Team Leader

Signature:  Date: 7 December 2017

Copied to : Contractor, Engineer Representative and IEC/ENPO

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notifications of Environmental Quality Limits Exceedances					Notification No.: 20171128_Air_24hr_v2
Date of Notification: 6 December 2017			Date of Investigation Report: 13 December 2017		
Date of Environmental Quality Limit Exceedance: 28 November 2017 and the results were issued on 6 December 2017					
Monitoring Location: AMS3B – Site Boundary of Site Office Area at Work Area WA2					
Monitoring Date: 28 November 2017			Start Time: 08:00		
Action & Limit Level (AL & LL) / Measured Level:					
PARAMETER	STATION	AL (µg/m³)	LL (µg/m³)	MEASURED LEVEL, µg/m³	
24-hr TSP	AMS3B – Site Boundary of Site Office Area at Works Area WA2	167	260	168	
Notes: <b><i>Bold Italic</i></b> means AL exceedance <b><i><u>Bold Italic with underline</u></i></b> means LL exceedance					



**Possible reason for Action / Limit Level Non-compliance:**

On 28 November 2017, one AL exceedance of 24-hr TSP at AMS3B was recorded.

Based on the information from the Contractor, the construction works undertaken on 28 and 29 November 2017 are shown as below:

- Waterproofing
- Backfilling
- Formwork and falsework stripping
- Pipework and ductwork installation
- Hanger rods for cable container
- Wet trade works
- Dry trade works
- MEP High Level Containment
- Removal of temporary works
- Window wall glazing
- Heat exchanger installation
- Curtain wall glazing
- Hanging scaffolding removal
- Footbridge construction
- Refuse collection point
- Southern toilet
- MISC steelwork
- Lift installation
- Escalator Installation
- Glazed lift installation
- Road & Kerbing
- Testing and commissioning works
- Water features and planters



The Contractor confirmed that the mitigation measures according to Water Spraying Plan in November 2017 (Appendix A) are implemented to avoid dust emission. Photos of haul road condition and dust suppression are included in Appendix A. The Contractor has provided the guideline to remind the site vehicles travel within speed limit of 8km/hr. According to the site inspection conducted on 29 November 2017, no dusty activities and dry condition in haul road were observed in the site area.

The Air Quality Health Index (AQHI) of Tung Chung station with the wind data from the on-site wind station are shown in Appendix B. The hourly AQHI of Tung Chung Station ranged 3 to 8 (Low to Very High) on 28 and 29 November 2017 during monitoring period. According to the wind data at on-site wind station, no prevailing wind direction was found in the monitoring period. The PCB site of HKBCF is far away from AMS3B (more than 1km). No potential dust source was observed near the monitoring station at AMS3B during the monitoring period.

Therefore, it is concluded that the exceedances were not related to the Contract.

**Actions taken/ to be taken:**

The Water Spraying Plan including the information of watering schedule, routing of trucks of for watering and the location of water filling, was prepared and submitted to RE and ENPO. The Contractor was also reminded to implement all necessary mitigation as specified in EIA (Section 5.5.6.3), EM&A Manual (EM&A Log Ref: A3), EMP, Method Statements, General and Particular Specifications of this Project to minimize the potential dust impact during construction activities.

Prepared by:	<u>Evan Wong</u>	Title:	<u>Environmental Team Representative</u>
Signature:	<u></u>	Date:	<u>13 December 2017</u>
Checked by:	<u>Keith Chau</u>	Title:	<u>Environmental Team Leader</u>
Signature:	<u></u>	Date:	<u>13 December 2017</u>
Copied to	: Contractor, Engineer Representative and IEC/ENPO		



**Contract No. HY/2013/01**  
**Hong Kong – Zhuhai – Macao – Bridge**  
**Boundary Crossing Facility – Passenger Clearance Building**

Water Truck License Plate Number: TH7681

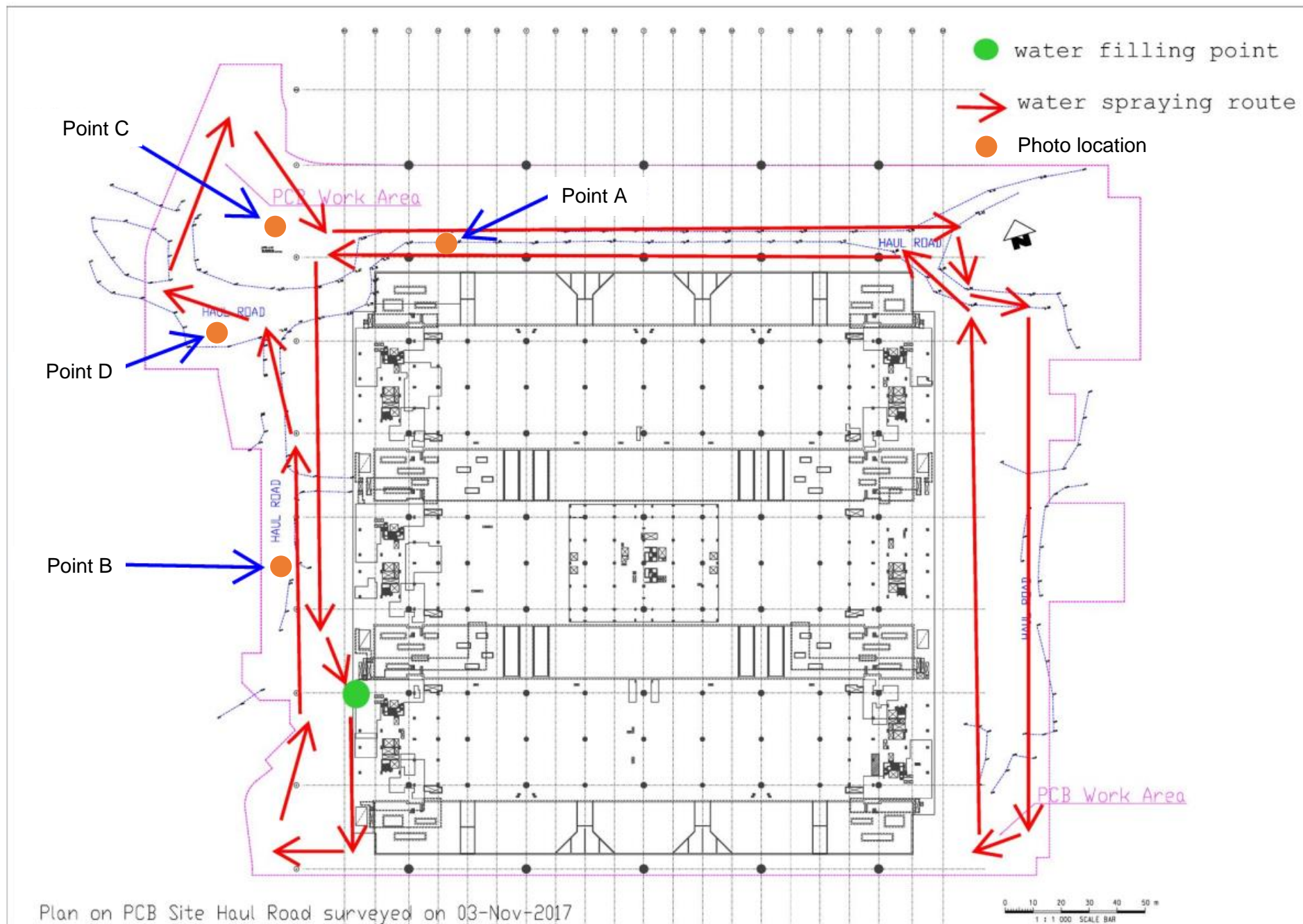
Capacity of Water Truck: 18000L

Volume of water / distance travelled = 11.4L/m

Water Truck could spray 18000L in one 50 minutes trip.

**Planned Schedule of Watering Spraying by Water Truck**

Cycle	Time of water spraying
1	08:00 – 09:15
2	09:15 – 10:30
3	10:30 – 11:45
4	13:00 – 14:15
5	14:15 – 15:30
6	15:30 – 16:45
7	16:45 – 18:00
8	18:00 – 19:00



Water spraying record on 28 Nov 2017

	
Water truck spray water on haul road (Point A)	Haul road is wet (Point A)
	
Haul road is wet (Point B)	



Water spraying record on 29 Nov 2017



Water truck spray water on haul road (Point C)



Haul road is wet (Point C)



Haul road is wet (Point D)

## Appendix B

Date	Hour	AQHI at Tung Chung Station	Average Wind Speed (m/s) #	Average Wind Direction #
2017/11/28	8	3	0	---
2017/11/28	9	3	0	---
2017/11/28	10	3	0	---
2017/11/28	11	4	0	---
2017/11/28	12	4	0	E
2017/11/28	13	4	0	---
2017/11/28	14	5	0	---
2017/11/28	15	5	0	---
2017/11/28	16	7	0	WNW
2017/11/28	17	5^	0	---
2017/11/28	18	6^	0	---
2017/11/28	19	8	0	---
2017/11/28	20	7	0	E
2017/11/28	21	6	0	---
2017/11/28	22	6	0	---
2017/11/28	23	6	0	---
2017/11/29	0	5	0	---
2017/11/29	1	5	0	---
2017/11/29	2	4	0	---
2017/11/29	3	4	0	---
2017/11/29	4	4	0	---
2017/11/29	5	3^	0	---
2017/11/29	6	3^	0	SSE
2017/11/29	7	3	0	SSE
2017/11/29	8	3	0.4	ENE

Remark:

^ The data collection for calculation of AQHI was affected due to station or equipment maintenance, the data of a most similar station was adopted.

#- The related wind data is obtained from the on-site wind station.

N.A. - Not available.

Contract No. HY/2013/01 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Passenger Clearance Building Notification of Environmental Quality Limit Exceedance			Notification No.: 201709-201711D
Date of Notification: 4 March 2019			
Works Inspected: Not Applicable			
Monitoring Location: NEL & NWL			
Parameter: Ecology (Chinese White Dolphin Monitoring)			
Action & Limit Levels			Monitoring Results
	North Lantau Social Cluster		The quarter of September 2017 – November 2017
	Action Level (AL)	Limit Level (LL)	
Northeast Lantau (NEL)	STG < 4.2 & ANI < 15.5	NEL: (STG < 2.4 & ANI <8.9) and NWL: (STG < 3.9 & ANI <17.9)	<b><u>STG = 0; ANI = 0</u></b>
Northwest Lantau (NWL)	STG < 6.9 & ANI < 31.3		<b><u>STG = 1.41; ANI =3.65</u></b>
Notes:			
1. STG means quarterly encounter rate of number of dolphin sightings.			
2. ANI means quarterly encounter rate of total number of dolphins.			
3. For North Lantau Social Cluster, AL will be triggered if either NEL or NWL falls below the criteria; LL will be triggered if both NEL and NWL fall below the criteria.			
4. <b>Italic</b> means AL exceedances.			
5. <b>Italic with underline</b> means LL exceedances			

**Possible reason for Action / Limit Level Non-compliance:**

One Limit Level exceedance of dolphin monitoring was recorded during quarterly monitoring (September – November 2017). The ETL informed IEC, ENPO, ER and Contractor via email on 7 December 2017.

According to information provided by ER, the marine based works undertaken during the quarterly were shown as below:

Contract No.: HY/2013/01

- Seawater intake seawall reinstatement and
- Seawater outfall pipe laying.

There is no evidence showing the current LL non-compliance directly related to the construction works of Contract No. HY/2013/01 (the Contract). The working vessels under the Contract have been travelling from source to destination in accordance with the Marine Travel Route to minimize impacts on Chinese White Dolphin (CWD). In addition, the fundamental principle is that the routes will not go through the dolphin hotspots near Brothers Marine Park.

Contract No.: HY/2013/02

- No marine based works.

Contract No.: HY/2013/03

- Box Culvert B outfall construction with cofferdams.

Contract No.: HY/2013/04

- Construction of temp steel cofferdam for Outfall construction at Box C and D.

**Actions taken/ to be taken:**

1. Statistical data analysis has been repeated to confirm findings;
2. All available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&A have been reviewed;
3. Identification of source of impact was carried out;
4. The ETL informed IEC, ENPO, ER and Contractor have been informed of findings on 7 December 2017;
5. Monitoring data have been checked;
6. Repeated review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary;
7. After investigation, there was no evidence that indicated that the reduced number of dolphins in NWL and NEL was related solely to Project works. It was also concluded the contributed of impacted due to the HZMB works as a whole (or individual nor separate).

**Recommendations/ mitigation measures/ actions if necessary:**

All dolphin protective measures are fully and properly implemented in accordance with the EM&A Manual.

Contract No.: HY/2013/01

According to information from ER, silt curtain was installed.

Contract No.: HY/2013/02

According to information from ER, silt curtain was removed on 5 September 2017.

Contract No.: HY/2013/03

According to information from ER, silt curtain was installed.

Contract No.: HY/2013/04

According to information from ER, silt curtain was installed.

Based on section 10.2.19 of the Updated EM&A Manual (for Hong Kong Boundary Crossing Facilities)(version 1.0) that verification by IEC on 4 January 2012, the travelling speed of vessels must not exceed 10 knots within the boundaries of the Sha Chau/Lung Kwu Chau Marine Park appears to be effective in protecting the dolphins from vessel collisions. The Contractor will continue to provide training for Captains of construction vessels working in the West Lantau waters and near the Brothers Marine Park should undergo training to learn about local dolphins and porpoises. They should be trained to be aware of the protocol for “dolphin friendly” vessel operation. All working vessels should be required to use regular travel routes, in order to minimize the chance of vessel collision. And the routes would not go through the dolphin hotspot near Brothers Marine Park.

A meeting was held on 7 March 2018 with attendance of representative of ENPO, Resident Site Staff (RSS), Environmental Team (ET) and dolphin specialist for Contract Nos. HY/2013/01, HY/2011/03, HY/2011/09, HY/2012/07, HY/2012/08, to discuss the issues regarding to dolphin exceedance for the quarter September- November 2017.

In the meeting, it was concluded that the Hong Kong-Zhuhai-Macao Bridge (HZMB) works is one of the contributing factors affecting the dolphins. It was also concluded the contribution of impacts due to the HZMB works as a whole (or individual marine contracts) cannot be quantified nor separate from the other stress factors.

It was reminded that the ETs shall keep reviewing the implementation status of the dolphin related mitigation measures and remind the contractor to ensure the relevant measures were fully implemented.

It was recommended that the marine works of HZMB projects should be completed as soon as possible so as to reduce the overall duration of impacts and allow the dolphins population to recover as early as possible.

It was also recommended that the marine works footprint (e.g., reduce the size of peripheral silt curtain) and vessels for the marine works should be reduced as much as possible, and vessels idling / mooring in other part of the North Lantau shall be avoided whenever possible.

The marine travel route will shift along the edge of Brothers Marine Park (BMP) as much as practical under the Regular Marine Travel Route Plan. It was noted that even though marine vessels may moor within the mooring site of BMP, commercial activities including loading / unloading / transshipment are not allowed except a permit is obtained. The HZMB works vessels were recommended to avoid the BMP.

Prepared by: Ruby Law



Title: ET Representative (up to 31 October 2018)

Date: 4 March 2019

Reviewed by: Keith Chau



Title: ET Leader (up to 31 October 2018)

Date : 4 March 2019

Copied to: IEC/ENPO, Contractor and Engineer Representative