Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances Notification No.: 235 ver 0

Date of Notification: 14 March 2017

Works Inspected: Data collected from water sampling works on 3 March 2017 and the results were issued on 10 March 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	SS SR5 DA		23.5 and 120% of upstream control station's suspended solids at the same tide of the same day  (i.e.	34.4 and 130% of upstream control station's suspended solids at the same tide of the same day  (i.e.	11.0	24.5	
			CS2: 11.5 x 120% = <b>13.8</b> for mid ebb AND CS(Mf)5: 6.08 x 120% = <b>7.3</b> for mid flood)	CS2: 11.5 x 130% = <b>15.0</b> for mid ebb AND CS(Mf)5: 6.08 x 130% = <b>7.9</b> for mid flood)			

Notes:

DA means depth average.

Bold Italic means AL exceedances.

**Bold Italic with underline** means LL exceedances.

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

On 3 March 2017, an Action Level exceedance of suspended solid was recorded at station SR5 during mid-flood tide. The exceedance has been investigated and is considered unlikely to be related to the contract works due to the following reasons:

- 1. Removal of surcharge and box culvert construction at Zones 1 and 2, drilling of pipe pile at Zone 1, seawall construction at Zones 2 and 3A and transportation of fill material at Zone 3A were carried out within the properly deployed silt curtain as recommended in the EIA Report.
- 2. There was no marine transportation at Zones 1, 2, and 3A on 3 March 2017.

3. The ranges of suspended solid at station SR5 during the baseline monitoring are shown as below:

Station	Range of Suspended Solid (mg/L) Mid-Ebb Tide			Range of Suspended Solid (mg/L) Mid-Flood Tide		
SR5	6.7	to	16.5	6.5	to	31.2

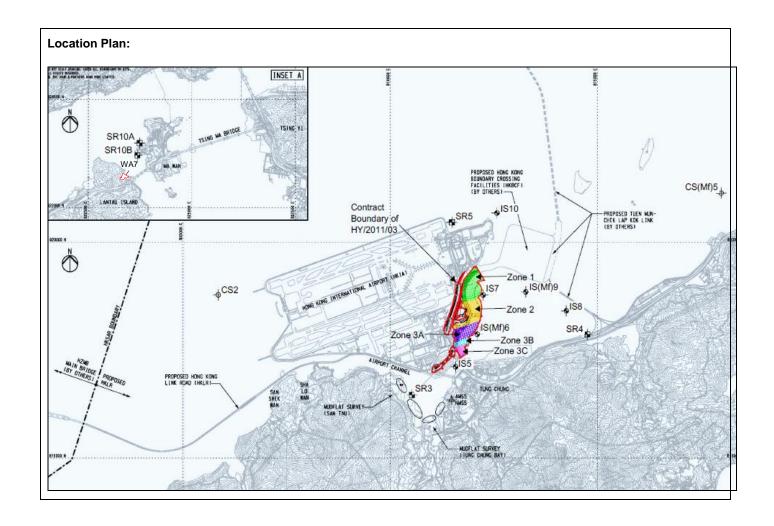
The measured value for mid-flood tide at station SR5 was within the range of suspended solid for mid-flood tide during baseline monitoring.

- 4. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results. No marine works was conducted near monitoring station SR5 which is located outside the site boundary of HKLR03 Contract. Also, there was no muddy plume observed at station SR5 during sampling exercise.
- 5. No leakage of turbid water or any abnormity or malpractice for all contract works was observed during the sampling exercise.

As such, the exceedance of suspended solid levels is considered to be attributed to other external factors such as sea condition, rather than the contract works.

# Actions taken/ to be taken:

As the suspended solid level recorded beyond the water quality criteria was not related to the contract works, no immediate actions are considered necessary. However, the Contractor is reminded to ensure that the silt curtain is fully maintained throughout the construction works and construction works are carried out under stringent supervision to prevent any water quality impacts to the seawater.



Date : 30 March 2017

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances Notification No.: 236 ver 0

Date of Notification: 27 March 2017

Works Inspected: Data collected from water sampling works on 24 March 2017 and the results were issued on 27 March

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 (NTU)	LL (NTU)	MEASURED AT MID- EBB TIDE (NTU)	MEASURED AT MID- FLOOD TIDE (NTU)
TURB	IS8	DA	27.5 and 120% of upstream control station's turbidity at the same tide of the same day  (i.e.	47.0 and 130% of upstream control station's turbidity at the same tide of the same day  (i.e.	21.4	35.5
TURB	SR4	DA	CS2: 6.02 x 120% = <b>7.2</b> for mid ebb AND CS(Mf)5: 2.75 x 120% = <b>3.3</b> for mid flood)	CS2: 6.02 x 130% = <b>7.8</b> for mid ebb AND CS(Mf)5: 2.75 x 130% = <b>3.6</b> for mid flood)	23.2	33.6

Notes:

DA means depth average.

**Bold Italic** means AL exceedances.

**Bold Italic with underline** means LL exceedances.

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

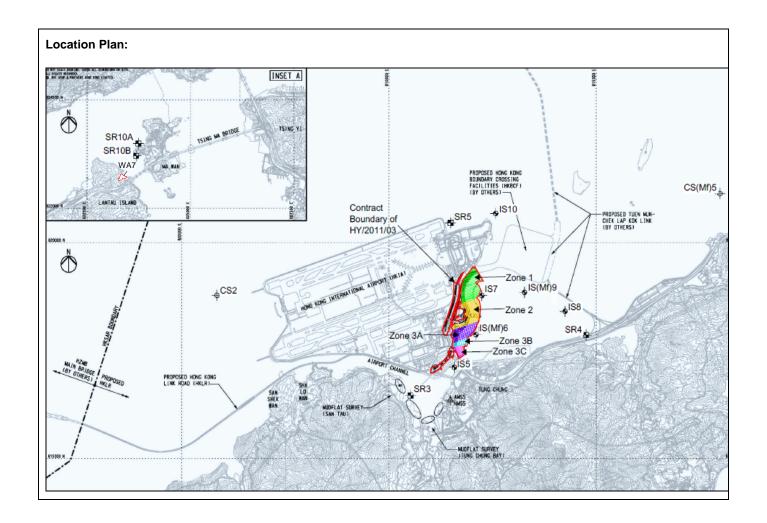
On 24 March 2017, Action Level exceedances of turbidity were recorded at stations IS8 and SR4 during mid-flood tide. The exceedances have been investigated and are considered unlikely to be related to the contract works due to the following reasons:

- 1. Removal of surcharge and box culvert construction at Zones 1 and 2, seawall construction at Zones 2 and 3A and transportation of fill material at Zone 3A were carried out within the properly deployed silt curtain as recommended in the EIA Report.
- 2. Yellow-brown colour of water was observed at stations IS8 and SR4 during sampling exercise. However, there was no marine transportation at Zones 1, 2, and 3A and no marine works was conducted near monitoring stations SR4 and IS8 which are located outside the site boundary of HKLR03 Contract.
- 3. There were no water quality exceedances at monitoring stations IS7 and IS(Mf)6 which are located closer to active work of the HKLR03 Contract than monitoring stations IS8 and SR4.
- 4. No leakage of turbid water or any abnormity or malpractice for the contract works was observed during the sampling exercise.

As such, the exceedances of turbidity are considered to be attributed to other external factors such as sea condition and local effect in the vicinity of stations IS8 and SR4, rather than the contract works.

# Actions taken/ to be taken:

As the turbidity levels recorded beyond the water quality criteria were not related to the contract works, no immediate actions are considered necessary. However, the Contractor is reminded to ensure that the silt curtain is fully maintained throughout the construction works and construction works are carried out under stringent supervision to prevent any water quality impacts to the seawater.



Date : 6 April 2017

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances Notification No.: 237 ver 0

Date of Notification: 3 April 2017

Works Inspected: Data collected from water sampling works on 24 March 2017 and the results were issued on 31 March

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	IS8	DA	23.5 and 120% of upstream control station's suspended solids at the same tide of the same day	34.4 and 130% of upstream control station's suspended solids at the same tide of the same day	33.8	<u>54.6</u>
SS	SR4	DA	(i.e. CS2: 5.85 x 120% = <b>7.0</b> for mid ebb AND CS(Mf)5: 7.50 x 120% = <b>9.0</b> for mid flood)	(i.e. CS2: 5.85 x 130% = <b>7.6</b> for mid ebb AND CS(Mf)5: 7.50 x 130% = <b>9.8</b> for mid flood)	<u>36.0</u>	<u>51.9</u>

Notes:

DA means depth average.

Bold Italic means AL exceedances.

**Bold Italic with underline** means LL exceedances.

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

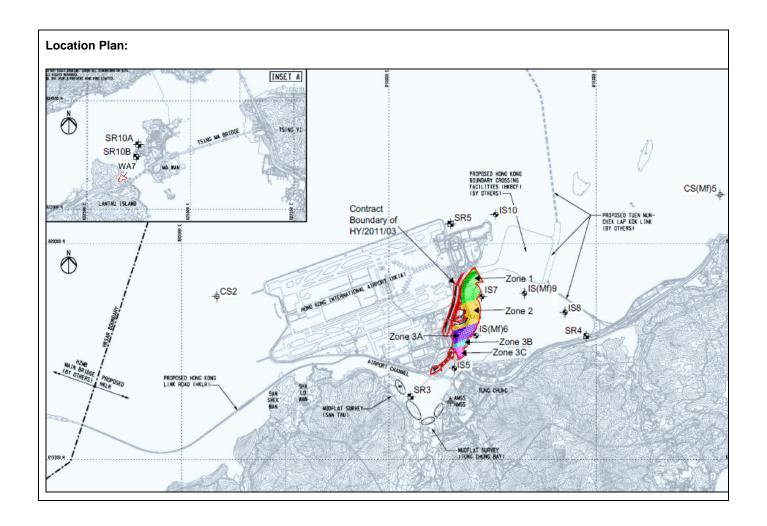
On 24 March 2017, an Action Level exceedance of suspended solid was recorded at station IS8 during mid-ebb tide. Three Limit Level exceedances of suspended solid were record at station SR4 during mid-ebb tide and at stations IS8 and SR4 during mid-flood tide. The exceedances have been investigated and are considered unlikely to be related to the contract works due to the following reasons:

- Removal of surcharge and box culvert construction at Zones 1 and 2, seawall construction at Zones 2 and 3A and transportation of fill material at Zone 3A were carried out within the properly deployed silt curtain as recommended in the EIA Report.
- 2. Yellow-brown colour of water was observed at stations IS8 and SR4 during sampling exercise. However, there was no marine transportation at Zones 1, 2, and 3A and no marine works was conducted near monitoring stations SR4 and IS8 which are located outside the site boundary of HKLR03 Contract.
- 3. There were no water quality exceedance at monitoring stations IS7 and IS(Mf)6 which are located closer to active work of the HKLR03 Contract than monitoring stations IS8 and SR4.
- No leakage of turbid water or any abnormity or malpractice for the contract works was observed during the sampling exercise.

As such, the exceedance of suspended solid levels is considered to be attributed to other external factors such as sea condition and local effect in the vicinity of stations IS8 and SR4, rather than the contract works.

#### Actions taken/ to be taken:

As the suspended solid level recorded beyond the water quality criteria was not related to the contract works, no immediate actions are considered necessary. However, the Contractor is reminded to ensure that the silt curtain is fully maintained throughout the construction works and construction works are carried out under stringent supervision to prevent any water quality impacts to the seawater.



Date : 6 April 2017

Hong Kong- Zhuhai- Macao Bridge

Hong Kong Link Road Section between Scenic Hill and Hong Kong Boundary Crossing Facilities

Notifications of Environmental Quality Limits Exceedances Notification No.: 238 ver 0

Date of Notification: 5 April 2017

Works Inspected: Data collected from water sampling works on 27 March 2017 and the results were issued on 3 April 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	IS8	DA	23.5 and 120% of upstream control station's suspended solids at the same tide of the same day (i.e. CS2: 10.40 x 120% = 12.5 for mid ebb AND CS(Mf)5: 6.02 x 120% = 7.2 for mid flood)	34.4 and 130% of upstream control station's suspended solids at the same tide of the same day (i.e. CS2: 10.40 x 130% = 13.5 for mid ebb AND CS(Mf)5: 6.02 x 130% = 7.8 for mid flood)	25.1	8.5

Notes:

DA means depth average.

Bold Italic means AL exceedances.

**Bold Italic with underline** means LL exceedances.

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

On 27 March 2017, an Action Level exceedance of suspended solid was recorded at station IS8 during mid-ebb tide. The exceedance has been investigated and is considered unlikely to be related to the contract works due to the following reasons:

1. Removal of surcharge and box culvert construction at Zones 1 and 2, seawall construction at Zones 2 and 3A and transportation of fill material at Zone 3A were carried out within the properly deployed silt curtain as recommended in the EIA Report.

2. The ranges of suspended solid at station SR5 during the baseline monitoring are shown as below:

Station	Range	of Suspended Mid-Ebb Ti	( )	Range of Suspended Solid (mg/L) Mid-Flood Tide		
IS8	5.5	to	25.5	5.8	to	31.3

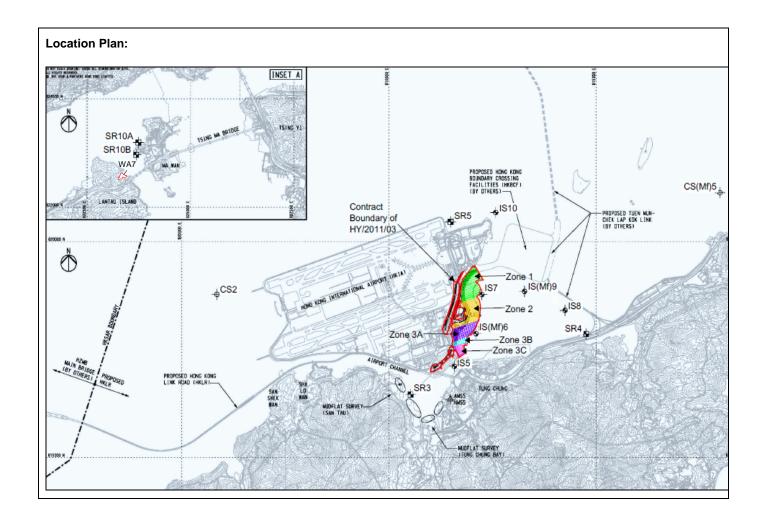
The measured value for mid-ebb tide at station IS8 was within the range of suspended solid for mid-ebb tide during baseline monitoring.

- 3. There was no marine transportation at Zones 1, 2, and 3A and no marine work was conducted near monitoring station IS8 which is located outside the site boundary of HKLR03 Contract. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results. Also, there was no muddy plume observed at station IS8 during sampling exercise.
- 4. No leakage of turbid water or any abnormity or malpractice for all contract works was observed during the sampling exercise.

As such, the exceedance of suspended solid level is considered to be attributed to other external factors such as sea condition, rather than the contract works.

## Actions taken/ to be taken:

As the suspended solid level recorded beyond the water quality criteria was not related to the contract works, no immediate actions are considered necessary. However, the Contractor is reminded to ensure that the silt curtain is fully maintained throughout the construction works and construction works are carried out under stringent supervision to prevent any water quality impacts to the seawater.



Date : 7 April 2017

# **Summary of Notifications of Summons and Prosecutions**

Total No. of Notifications of Summons / Prosecutions Received	No. of Notifications of Summons / Prosecutions Received during Reporting Period	Status of Notifications of Summons / Prosecutions
0	0	N/A