# Contract No. HY/2011/03 -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.: 265s ver 1

Date of Notification: 16 January 2018

**Works Inspected:** Data collected from water sampling works on 8 January 2018 and the results were issued on 15 January 2018

### Monitoring Location: Water Quality Monitoring Station

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

#### Action & Limit Level (AL & LL) / Measured Level: MEASURED AT MID-MEASURED AT MID-PARAM STATION DEPTH AL (mg/L) LL (mg/L) EBB TIDE (mg/L) FLOOD TIDE (mg/L) 34.4 and 130% of 23.5 and 120% of upstream control upstream control station's station's suspended solids suspended solids at the same tide of at the same tide of the same day the same day IS8 24.9 11.4 SS DA (i.e. (i.e. CS2(A): (see note CS2(A): (see note 4) for mid ebb; 4) for mid ebb; CS(Mf)5: 7.13 x CS(Mf)5: 7.13x 120% = 8.6 for 130% = 9.3 for mid mid flood) flood)

Notes:

1) DA means depth average.

2) Bold Italic means AL exceedances.

3) Bold Italic with underline means LL exceedances.

4) Water quality monitoring was not conducted at station CS2(A) during mid ebb and mid flood tide on 8 January 2018 due to rough sea condition and safety concern.

## Possible reasons for Action Level Non-compliance:

On 8 January 2018, 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. Seawall construction, road and drainage construction at Zones 1 and 2; box culvert construction at Zones 2 and 3; road and drainage work, land transportation of fill material at Zone 3 were carried out within the properly deployed silt curtain as recommended in the EIA Report.
- 2. The ranges of suspended solid at station IS8 during the baseline monitoring are shown as below:

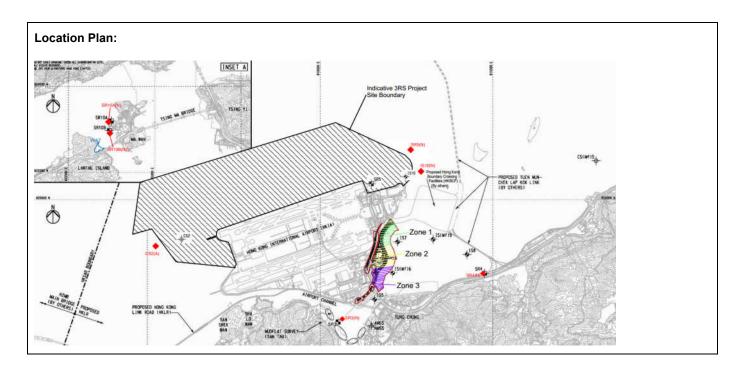
Station	Range	of Suspended Mid-Ebb Tic		Range	of Suspended Mid-Flood T	
IS8	5.5	to	25.5	5.8	to	31.3

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

- 3. During sampling exercise, water appearance was observed moderate at station IS8. There was no marine transportation near station IS8 during sampling period and no marine works were conducted near station IS8 which is located outside the site boundary of HKLR03 Contract. No abnormity or malpractice for the contract works was observed during the sampling exercise.
- 4. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results. 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.



Reviewed by	: Claudine Lee	Title : ET Leader
	$\Omega_{\alpha}$	
		Date : 8 February 2018
• • • • •		

Copied to

: Supervising Officer, IEC, EPD, Contractor, ENPO

#### Contract No. HY/2011/03 -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.: 266a ver 2

Date of Notification: 23 January 2018

Works Inspected: 1-hr TSP monitoring was undertaken on 22 January 2018

## Monitoring Location: AMS5 - Ma Wan Chung Village

## Parameter: 1-hour TSP monitoring

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

PARAMETER	STATION	<u>AL (μg/m³)</u>	<u>LL (µg/m³)</u>	MEASURED LEVEL, µg/m <sup>3</sup>
1-hr TSP (09:00 – 10:00 hours)	Ma Wan Chung Village (AMS5)	352	500	349
1-hr TSP (10:00 – 11:00 hours)	Ma Wan Chung Village (AMS5)	352	500	398
1-hr TSP (11:00 – 12:00 hours)	Ma Wan Chung Village (AMS5)	352	500	391

### Notes: Bold Italic means AL exceedance

Bold Italic with underline means LL exceedance

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

Two Action Level exceedances of 1-hr TSP level were recorded for monitoring period from 09:00 – 12:00 hours at AMS5 – Ma Wan Chung Village, on 22 January 2018.

According to the information provided by the Contractor, the following construction activities were undertaken during the sampling period:

## Zone 1

- Seawall Construction
- Road and Drainage Construction

### Zone 2

- Seawall Construction
- Road and Drainage Construction

#### Zone 3A, 3B and 3C

- Seawall Construction
- Land Transportation of Fill Material
- Box Culvert Construction
- Road and Drainage Work

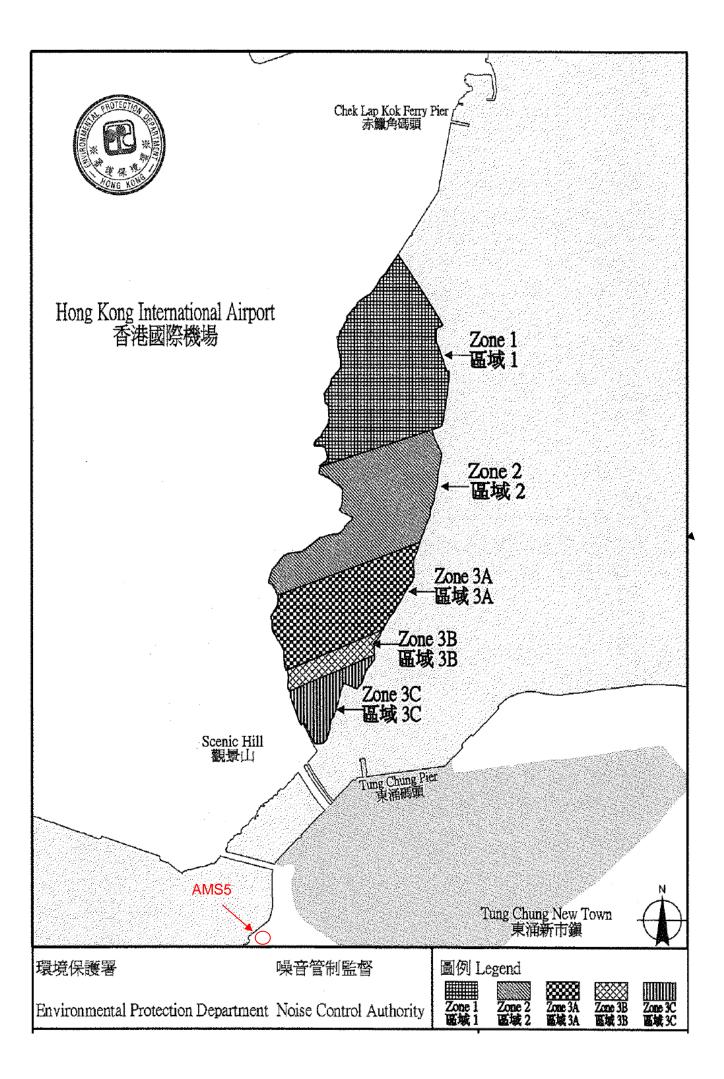
The Contractor confirmed that water spraying had been provided for fill materials to maintain the entire surface in a damp condition before loading and unloading and haul roads were sprayed with water by water trucks regularly. The fill material in dump trucks were covered to avoid generating dust. During the site visit undertaken on 26 January 2018, no significant dust emission was observed by ET at the construction site near monitoring station AMS5. Except the exceedances recorded on 22 January 2018, no Action and Limit Level exceedances of 1-hr TSP were recorded at AMS5 on other monitoring day in January 2018 (i.e 4, 10, 16 and 26 January 2018) and no Action and Limit Level exceedances of 24-hr TSP were recorded at AMS5 in January 2018.

The Air Quality Health Index (AQHI) recorded by EPD at the Tung Chung station ranged from 3 (low) to 6 (moderate) during the sampling period on 22 January 2018. The general weather condition during the monitoring period was hazy with low visibility. The hazy weather could cause higher readings of the portable dust meter.

## Actions taken/ to be taken:

The Contractor had properly implemented dust control measures efficiently throughout the construction phase. Mitigation measures such as water spraying by water truck was applied regularly. No significant dust emission was observed by ET on 26 January 2018 at construction site near monitoring station AMS5. The Contractor is reminded to continuously implement the dust mitigation measures as specified in Environmental Mitigation Implementation Schedule (EMIS), Environmental Management Plan, Method Statements, General and Particular Specifications of this Contract throughout the construction phase.

Reviewed by	:	Claudine Lee	Title	:	ET Leader
		Clan.	Date	:	13 February 2018
Copied to	:	Supervising Officer, IEC, EPD, Contractor, E	NPO	-	



#### Contract No. HY/2011/03 -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.: 267a ver 2

Date of Notification: 23 January 2018

## Works Inspected: 1-hr TSP monitoring was undertaken on 22 January 2018

## Monitoring Location: AMS6 – Dragonair Building

## Parameter: 1-hour TSP monitoring

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

PARAMETER STATION		<u>AL (µg/m³)</u>	<u>LL (µg/m³)</u>	MEASURED LEVEL, μg/m <sup>3</sup>
1-hr TSP (13:00 – 14:00 hours)	Dragonair Building (AMS6)	360	500	386
1-hr TSP (14:00 – 15:00 hours)	Dragonair Building (AMS6)	360	500	400
1-hr TSP (15:00 – 16:00 hours)	Dragonair Building (AMS6)	360	500	412

#### Notes: Bold Italic means AL exceedance

Bold Italic with underline means LL exceedance

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

Three Action Level exceedances of 1-hr TSP level were recorded for monitoring period from 13:00 – 16:00 hours at AMS6, Dragonair Building, on 22 January 2018.

According to the information provided by the Contractor, the following construction activities were undertaken during the sampling period:

#### <u>Zone 1</u>

- Seawall Construction
- Road and Drainage Construction

#### Zone 2

- Seawall Construction
- Road and Drainage Construction

## Zone 3A, 3B and 3C

- Seawall Construction
- Land Transportation of Fill Material
- Box Culvert Construction Road and Drainage Work
- Road and Drainage Work

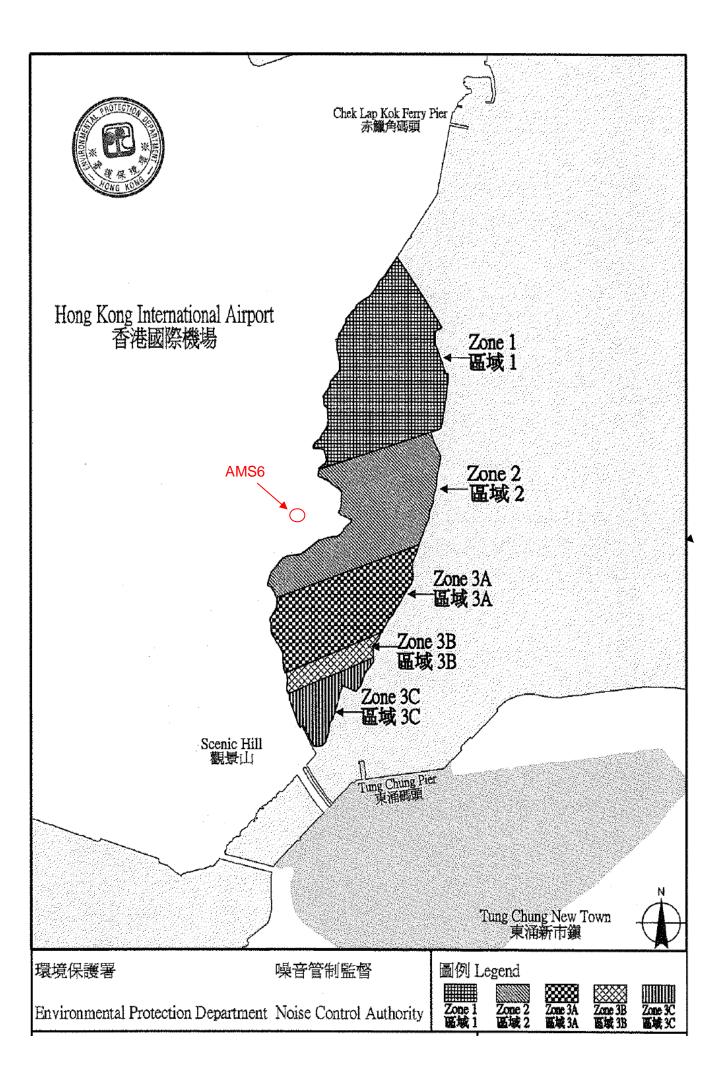
The Contractor confirmed that water spraying had been provided for fill materials to maintain the entire surface in a damp condition before loading and unloading and haul roads were sprayed with water by water trucks regularly. The fill material in dump trucks were covered to avoid generating dust. During the site visit undertaken on 26 January 2018, no significant dust emission was observed by ET at the construction site near monitoring station AMS6. Except the exceedances recorded on 22 January 2018, no Action and Limit Level exceedances of 1-hr TSP were recorded at AMS6 on monitoring day in January 2018 (i.e 4, 10, 16, 26 January 2018) and no Action and Limit Level exceedances of 24-hr TSP were recorded at AMS6 in January 2018.

The Air Quality Health Index (AQHI) recorded by EPD at the Tung Chung station ranged from 8 (very high) to 10+ (serious) during the sampling period on 22 January 2018. The general weather condition during the monitoring period was hazy with low visibility. The hazy weather could cause higher readings of the portable dust meter.

## Actions taken/ to be taken:

The Contractor had properly implemented dust control measures efficiently throughout the construction phase. Mitigation measures such as water spraying by water truck was applied regularly. No significant dust emission was observed by ET on 26 January 2018 at construction site near monitoring station AMS6. The Contractor is reminded to continuously implement the dust mitigation measures as specified in Environmental Mitigation Implementation Schedule (EMIS), Environmental Management Plan, Method Statements, General and Particular Specifications of this Contract throughout the construction phase.

Reviewed by	:	Claudine Lee	Title	:	ET Leader
		Chan.	Date	:	13 February 2018
Copied to	:	Supervising Officer, IEC, EPD, Contractor, EN	PO		



### Contract No. HY/2011/03 -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.: 268s ver 1

Date of Notification: 29 January 2018

**Works Inspected:** Data collected from water sampling works on 22 January 2018 and the results were issued on 26 January 2018

## Monitoring Location: Water Quality Monitoring Station

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

#### Action & Limit Level (AL & LL) / Measured Level: MEASURED AT MID-MEASURED AT MID-PARAM STATION DEPTH AL (mg/L) LL (mg/L) EBB TIDE (mg/L) FLOOD TIDE (mg/L) 23.5 and 120% of 34.4 and 130% of upstream control upstream control station's station's suspended solids suspended solids at the same tide of at the same tide of the same day the same day IS8 SS DA (i.e. (i.e. 9.9 24.7 CS2(A): 6.70 x CS2(A): 6.70 x 120%= 8.0 for 130%= 8.7 for mid mid ebb; ebb; CS(Mf)5: 11.70 x CS(Mf)5: 11.70 x 120% = **14.0** for 130% = **15.2** for mid flood) mid flood)

Notes:

1) DA means depth average.

2) Bold Italic means AL exceedances.

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

## Possible reasons for Action Level Non-compliance:

On 22 January 2018, an Action Level exceedance of suspended solid was recorded at station IS8 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. Seawall construction, road and drainage construction at Zones 1 and 2; box culvert construction at Zones 2 and 3; road and drainage work, land transportation of fill material at Zone 3 were carried out within the properly deployed silt curtain as recommended in the EIA Report.
- 2. The ranges of suspended solid at station IS8 during the baseline monitoring are shown as below:

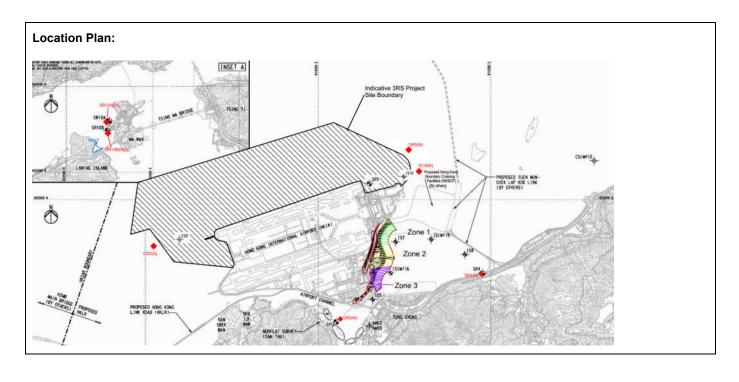
Station	Range of Suspended Solid (mg/L) Mid-Ebb Tide		Range of Suspended Solid (mg/L) Mid-Flood Tide			
IS8	5.5	to	25.5	5.8	to	31.3

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

- 3. During sampling exercise, water appearance was observed moderate at station IS8. There was no marine transportation near station IS8 during sampling period and no marine works were conducted near station IS8 which is located outside the site boundary of HKLR03 Contract. No abnormity or malpractice for the contract works was observed during the sampling exercise.
- 4. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results. 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.



Reviewed by	: Claudine Lee	Title : ET Leader
	Clan.	Date : _ 8 February 2018
Copied to	: Supervising Officer, IEC, EPD, Contractor, El	NPO

# Contract No. HY/2011/03 -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.: 269s ver 0

Date of Notification: 1 February 2018

**Works Inspected:** Data collected from water sampling works on 24 January 2018 and the results were issued on 31 January 2018

## Monitoring Location: Water Quality Monitoring Station

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

#### Action & Limit Level (AL & LL) / Measured Level: MEASURED AT MID-MEASURED AT MID-PARAM STATION DEPTH AL (mg/L) LL (mg/L) EBB TIDE (mg/L) FLOOD TIDE (mg/L) 23.5 and 120% of 34.4 and 130% of upstream control upstream control station's station's suspended solids suspended solids at the same tide of at the same tide of the same day the same day IS8 SS DA (i.e. (i.e. 24.9 12.7 CS2(A): 12.07 x CS2(A): 12.07 x 120% = **14.5** for 130% = **15.7** for mid ebb; mid ebb; CS(Mf)5: 8.78 x CS(Mf)5: 8.78 x 120% = 10.5 for 130% = **11.4** for mid flood) mid flood)

Notes:

1) DA means depth average.

2) Bold Italic means AL exceedances.

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

## Possible reasons for Action Level Non-compliance:

On 24 January 2018, an Action Level exceedance of suspended solid was recorded at station IS8 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. Seawall construction, road and drainage construction at Zones 1 and 2; box culvert construction at Zones 2 and 3; road and drainage work, land transportation of fill material at Zone 3 were carried out within the properly deployed silt curtain as recommended in the EIA Report.
- 2. The ranges of suspended solid at station IS8 during the baseline monitoring are shown as below:

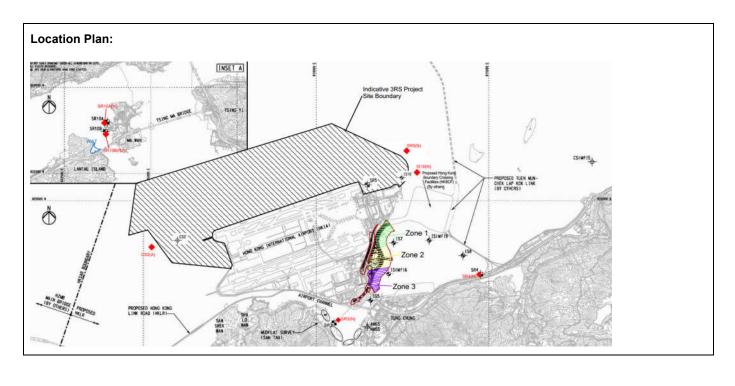
Station	Range of Suspended Solid (mg/L) Mid-Ebb Tide		Range of Suspended Solid (mg/L) Mid-Flood Tide			
IS8	5.5	to	25.5	5.8	to	31.3

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

- 3. During sampling exercise, water appearance was observed clear at station IS8. There was no marine transportation near station IS8 during sampling period and no marine works were conducted station IS8 which is located outside the site boundary of HKLR03 Contract. No abnormity or malpractice for the contract works was observed during the sampling exercise.
- 4. There were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results. 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.



Reviewed by	: Claudine Lee	Title : ET Leader
	Cl	Date : 6 February 2018
Copied to	: Supervising Officer, IEC, EPD, Contractor, E	NPO

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

# Summary of Notifications of Summons and Prosecutions