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.: 189

Date of Notification: 6 October 2014

Works Inspected: Data collected from water sampling works on 10 September 2014 and the test report was issued on 17 September 2014.

Monitoring Location: Water Quality Monitoring Stations

Parameter: ~~Dissolved Oxygen (DO)~~/ Suspended Solids (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	DA	**23.5** and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 3.63 x 120% = **4.4** mg/L for mid ebb) AND CS(Mf)5: 7.35 x 120% = **8.8** mg/L for mid flood)	**34.4** and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 3.63 x 130% = **4.7** mg/L for mid ebb) AND CS(Mf)5: 7.35 x 130% = **9.6** mg/L for mid flood)	***34.5***	7.8
SS	SR3	DA	**23.5** and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 3.63 x 120% = **4.4** mg/L for mid ebb) AND CS(Mf)5: 7.35 x 120% = **8.8** mg/L for mid flood)	**34.4** and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 3.63 x 130% = **4.7** mg/L for mid ebb) AND CS(Mf)5: 7.35 x 130% = **9.6** mg/L for mid flood)	***27.5***	8.6

Notes:
DA means depth average.
Bold Italic means AL exceedances.
Bold Italic with underline means LL exceedances.

Possible reason for Action or Limit Level Non-compliance:

On 10 September 2014, a LL exceedance of suspended solids at station IS5 and an AL exceedance of suspended solids at station SR3 were recorded during mid-ebb tide. The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reasons:

1. Construction of seawall and stone column works at Zone 1 were carried out within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations IS5 and SR3 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		
IS5	8.1	to	25.7	7	to	23.7
SR3	6.7	to	31	7.6	to	28

The measured value at station SR3 was within the range of suspended solid during baseline monitoring for mid-ebb tide. The measured value at station IS5 was above the range of suspended solid during baseline monitoring for mid-ebb tide. However, there were no specific activities recorded during the monitoring period that would cause any significant

impacts on the monitoring results.

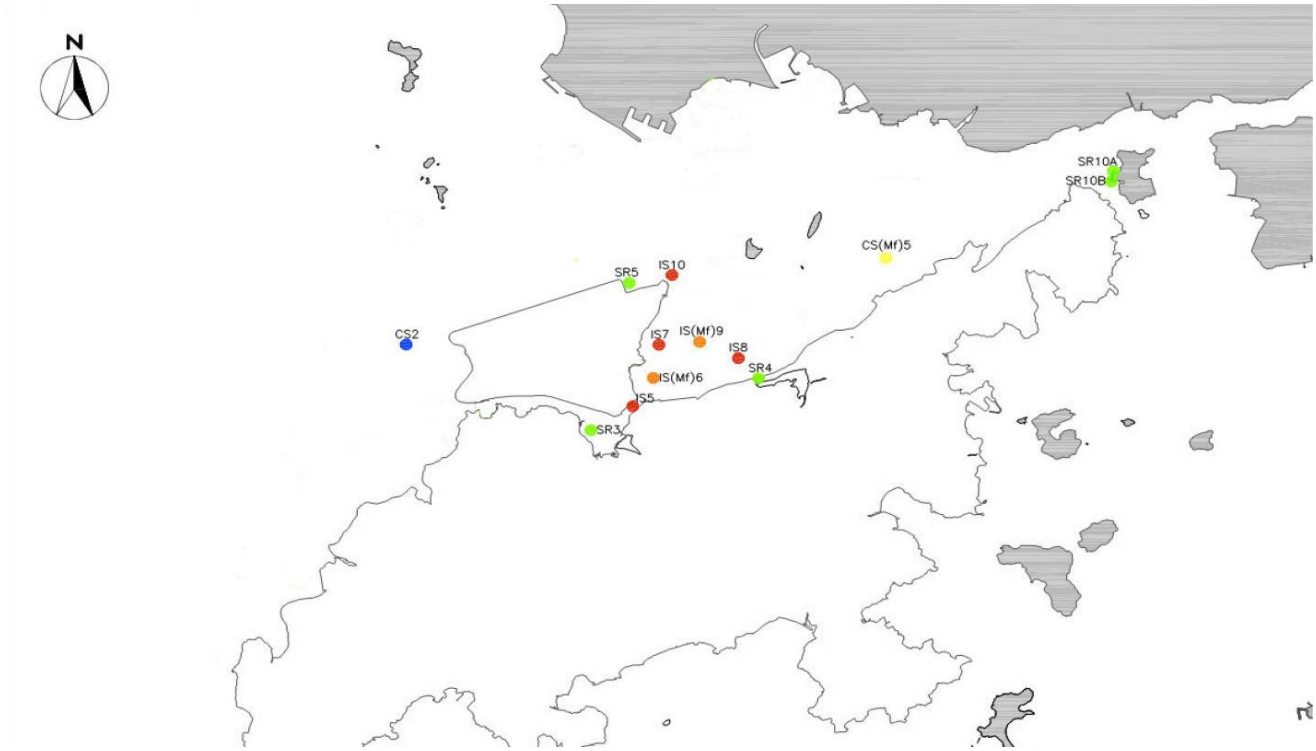
3. No leakage of turbid water or any abnormity or malpractice was observed during the sampling exercise.

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

Actions taken/ to be taken:

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

Location Plan:



Reviewed by : Claudine Lee Title : ET Leader

Date : 6 October 2014

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.: 190

Date of Notification: 24 October 2014

Works Inspected: Data collected from water sampling works on 6 October 2014 and the test report was issued on 14 October 2014.

Monitoring Location: Water Quality Monitoring Stations

Parameter: ~~Dissolved Oxygen (DO)~~/ Suspended Solids (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	DA	**23.5** and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 2.98 x 120% = **3.6** mg/L for mid ebb) AND CS(Mf)5: 8.05 x 120% = **9.7** mg/L for mid flood)	**34.4** and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 2.98 x 130% = **3.9** mg/L for mid ebb) AND CS(Mf)5: 8.05 x 130% = **10.5** mg/L for mid flood)	4.1	***39.2***

Notes:
DA means depth average.
Bold Italic means AL exceedances.
Bold Italic with underline means LL exceedances.

Possible reason for Action or Limit Level Non-compliance:

On 6 October 2014, a LL exceedance of suspended solids at station SR5 was recorded during mid-flood tide. The exceedance has been investigated and is considered unlikely to be related to contract works due to the following reasons:

1. Construction of seawall at Zone 1, 2 and 3A were carried out within 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 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

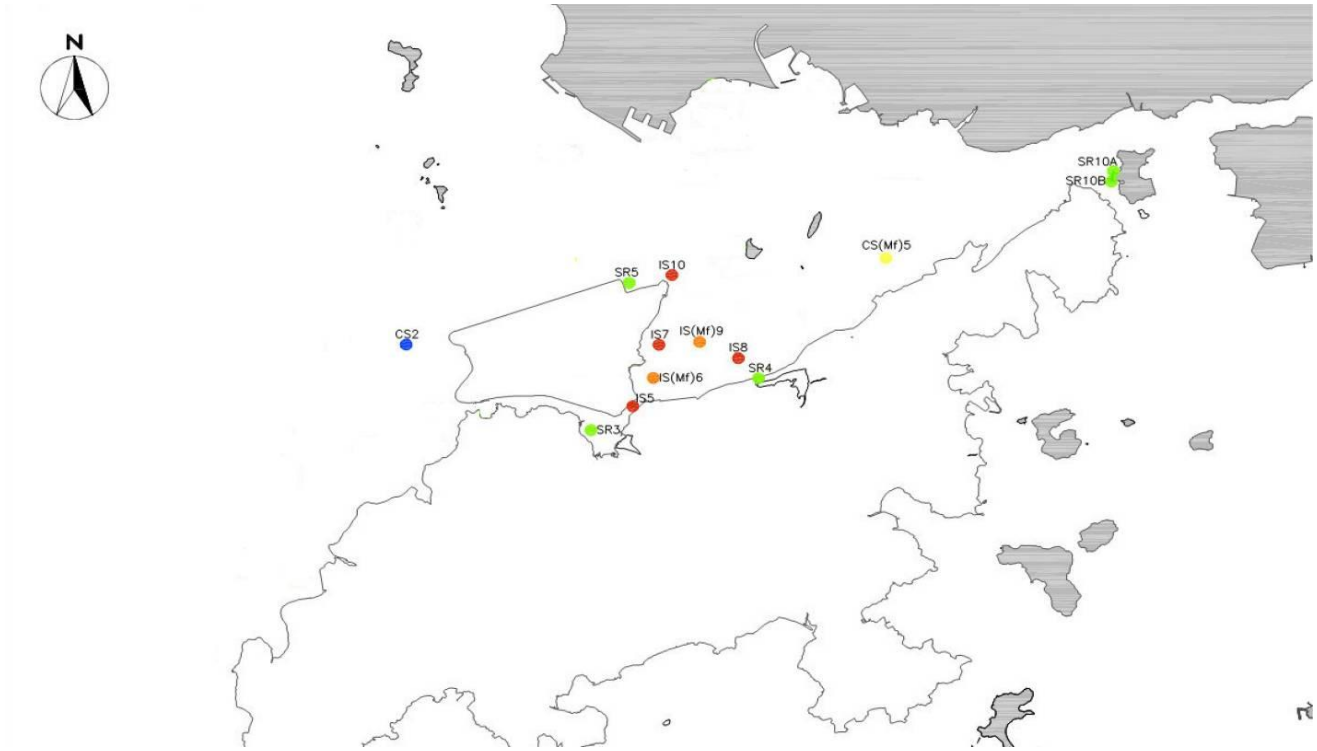
   The measured value at station SR5 was above the range of suspended solid during baseline monitoring for mid-flood tide. However, there were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
3. No leakage of turbid water or any abnormity or malpractice was observed during the sampling exercise.

As such, the suspended solid level is considered to be attributed to other external factors 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 contract works, no immediate actions are considered necessary.

Location Plan:



Reviewed by : Claudine Lee Title : ET Leader

Date : 28 October 2014

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.: 191

Date of Notification: 24 October 2014

Works Inspected: Data collected from water sampling works on 10 October 2014 and the test report was issued on 17 October 2014.

Monitoring Location: Water Quality Monitoring Stations

Parameter: ~~Dissolved Oxygen (DO)~~/ Suspended Solids (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	DA	**23.5** and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 11.75 x 120% = **14.1** mg/L for mid ebb) AND CS(Mf)5: 14.07 x 120% = **16.9** mg/L for mid flood)	**34.4** and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 11.75 x 130% = **15.3** mg/L for mid ebb) AND CS(Mf)5: 14.07 x 130% = **18.3** mg/L for mid flood)	7.6	***24.0***
SS	SR10B	DA	**23.5** and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 11.75 x 120% = **14.1** mg/L for mid ebb) AND CS(Mf)5: 14.07 x 120% = **16.9** mg/L for mid flood)	**34.4** and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 11.75 x 130% = **15.3** mg/L for mid ebb) AND CS(Mf)5: 14.07 x 130% = **18.3** mg/L for mid flood)	7.1	***28.3***

Notes:
DA means depth average.
Bold Italic means AL exceedances.
Bold Italic with underline means LL exceedances.

Possible reason for Action or Limit Level Non-compliance:

On 10 October 2014, AL exceedances of suspended solids at stations IS5 and SR10B were recorded during mid-flood tide. The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reasons:

1. Stone column works and construction of seawall at Zone 1 and construction of seawall at Zone 2 were carried out within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations SR5 and SR10B 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
SR10B	3.1	to	30.8	5.7	to	26.7

The measured value at station SR5 was within the range of suspended solid during baseline monitoring for mid-flood tide. The measured value at station SR10B was above the range of suspended solid during baseline monitoring for mid-flood tide. However, there were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.

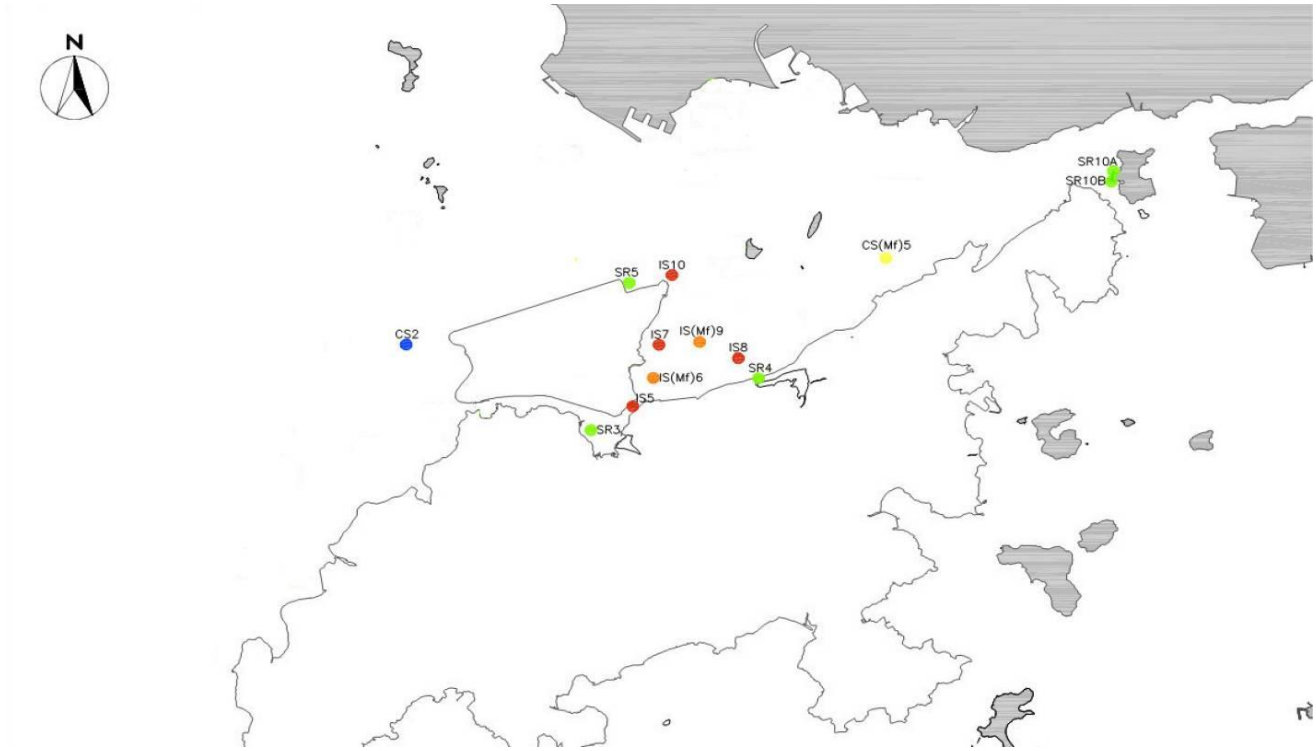
3. No leakage of turbid water or any abnormity or malpractice was observed during the sampling exercise.

As such, the suspended solid levels are considered to be attributed to other external factors rather than the contract works.

Actions taken/ to be taken:

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

Location Plan:



Reviewed by : Claudine Lee Title : ET Leader

Date : 28 October 2014

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.: 192

Date of Notification: 24 October 2014

Works Inspected: 24-hr TSP monitoring was undertaken on 15 October 2014 and the test report was issued on 22 October 2014.

Monitoring Location: AMS6 – Dragonair Building (AMS6)

Parameter: 24-hour TSP monitoring

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

PARAMETER	STATION	AL (µg/m^3)	LL (µg/m^3)	MEASURED LEVEL, µg/m^3
24-hr TSP (8:00 – 8:00 hours)	Dragon Air Building (AMS6)	173	260	***186***

Notes: ***Bold Italic*** means AL exceedance
Bold Italic with underline means LL exceedance

Possible reason for Action or Limit Level Non-compliance:

An Action Level exceedance of 24-hr TSP level was recorded at AMS6, Dragonair Building on 15 October 2014.

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

Zone 1

- Stone column works
- Seawall construction

Zone 2

- Seawall construction
- Transfer of fill material

Zone 3A
- Seawall construction
- Transfer of fill material

The general weather condition at Tung Chung was foggy during the dust sampling period. The Air Quality Health Index (AQHI) recorded by EPD at the Tung Chung station during the sampling time ranged from 4 (moderate) to 9 (very high). Therefore, it is considered that the exceedance was not related to the construction activities of the Contract and was caused by poor weather condition.

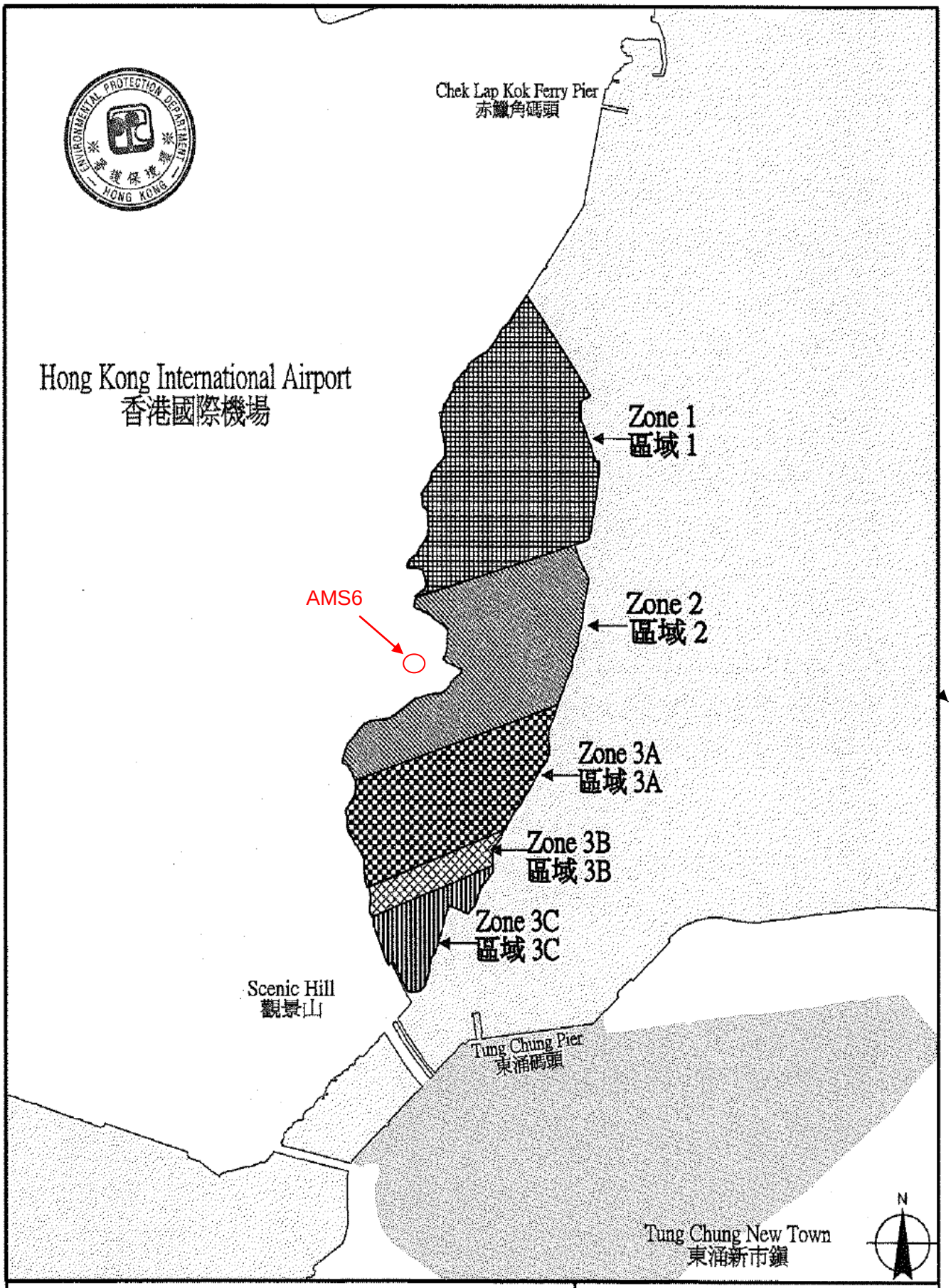
Actions taken/ to be taken:

As the 24-hr TSP exceedance was not related to project works, no immediate actions are considered necessary. However, the Contractor is reminded to suppress potential dust generation during the construction works.

Reviewed by : Claudine Lee Title : ET Leader

Date : 28 October 2014

Copied to : Supervising Officer, IEC, EPD, Contractor, ENPO


Chek Lap Kok Ferry Pier
赤鱲角碼頭
Hong Kong International Airport
香港國際機場
Zone 1
區域 1
AMS6
Zone 2
區域 2
Zone 3A
區域 3A
Zone 3B
區域 3B
Zone 3C
區域 3C
Scenic Hill
觀景山
Tung Chung Pier
東涌碼頭
Tung Chung New Town
東涌新市鎮
N
環境保護署
Environmental Protection Department
噪音管制監督
Noise Control Authority
圖例 Legend
Zone 1
區域 1
Zone 2
區域 2
Zone 3A
區域 3A
Zone 3B
區域 3B
Zone 3C
區域 3C

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.: 193

Date of Notification: 24 October 2014

Works Inspected: Data collected from water sampling works on 13 October 2014 and the test report was issued on 20 October 2014.

Monitoring Location: Water Quality Monitoring Stations

Parameter: ~~Dissolved Oxygen (DO)~~/ Suspended Solids (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	IS10	DA	**23.5** and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 5.87 x 120% = **7.0** mg/L for mid ebb) AND CS(Mf)5: 3.78 x 120% = **4.5** mg/L for mid flood)	**34.4** and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 5.87 x 130% = **7.6** mg/L for mid ebb) AND CS(Mf)5: 3.78 x 130% = **4.9** mg/L for mid flood)	7.5	***26.0***
SS	SR5	DA	**23.5** and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 5.87 x 120% = **7.0** mg/L for mid ebb) AND CS(Mf)5: 3.78 x 120% = **4.5** mg/L for mid flood)	**34.4** and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 5.87 x 130% = **7.6** mg/L for mid ebb) AND CS(Mf)5: 3.78 x 130% = **4.9** mg/L for mid flood)	8.3	***23.8***

Notes:
DA means depth average.
Bold Italic means AL exceedances.
Bold Italic with underline means LL exceedances.

Possible reason for Action or Limit Level Non-compliance:

On 13 October 2014, AL exceedances of suspended solids at station IS10 and SR5 were recorded during mid-flood tide. The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reasons:

1. Stone column and seawall construction works at Zone 1 and seawall construction works at Zone 2 and 3A were carried out within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations IS10 and 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		
IS10	6.1	to	20.2	7.2	to	16
SR5	6.7	to	16.5	6.5	to	31.2

The measured value at station SR5 was within the range of suspended solid during baseline monitoring for mid-flood tide. The measured value at station IS10 was above the range of suspended solid during baseline monitoring for mid-flood tide. However, there were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.

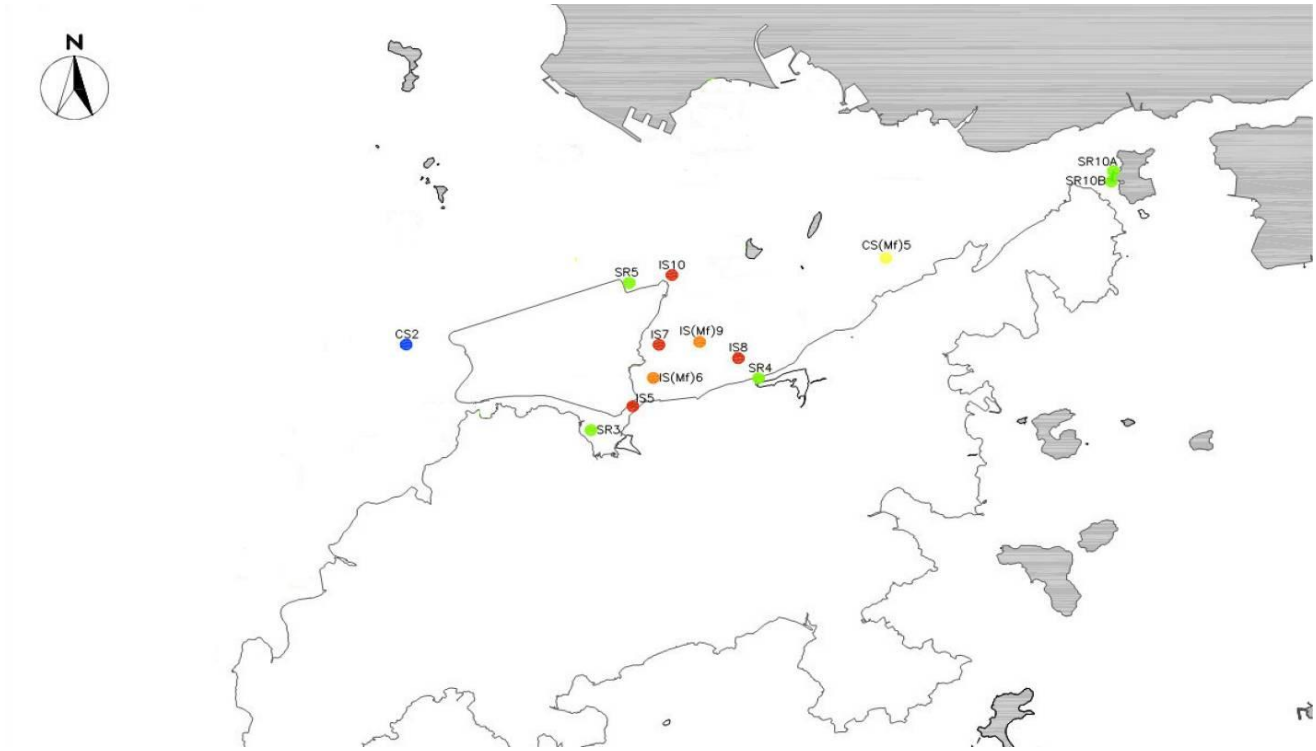
3. No leakage of turbid water or any abnormity or malpractice was observed during the sampling exercise.

As such, the suspended solid levels are considered to be attributed to other external factors rather than the contract works.

Actions taken/ to be taken:

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

Location Plan:



Reviewed by : Claudine Lee Title : ET Leader

Date : 28 October 2014

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.: 194

Date of Notification: 7 November 2014

Works Inspected: Data collected from water sampling works on 20 October 2014 and the test report was issued on 27 October 2014.

Monitoring Location: Water Quality Monitoring Stations

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	SR4	DA	**23.5** and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 3.45 x 120% = **4.1** mg/L for mid ebb) AND CS(Mf)5: 4.97 x 120% = **6.0** mg/L for mid flood)	**34.4** and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 3.45 x 130% = **4.5** mg/L for mid ebb) AND CS(Mf)5: 4.97 x 130% = **6.5** mg/L for mid flood)	6.0	***33.8***

Notes:
DA means depth average.
Bold Italic means AL exceedances.
Bold Italic with underline means LL exceedances.

Possible reason for Action or Limit Level Non-compliance:

On 20 October 2014, an AL exceedance of suspended solid at station SR4 was recorded during mid-flood tide. The exceedance has been investigated and is considered unlikely to be related to contract works due to the following reasons:

1. Stone column works and seawall construction works at Zone 1 and seawall construction works at Zones 2 and 3A were carried out within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations SR4 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		
SR4	5.3	to	20	5.6	to	24.5

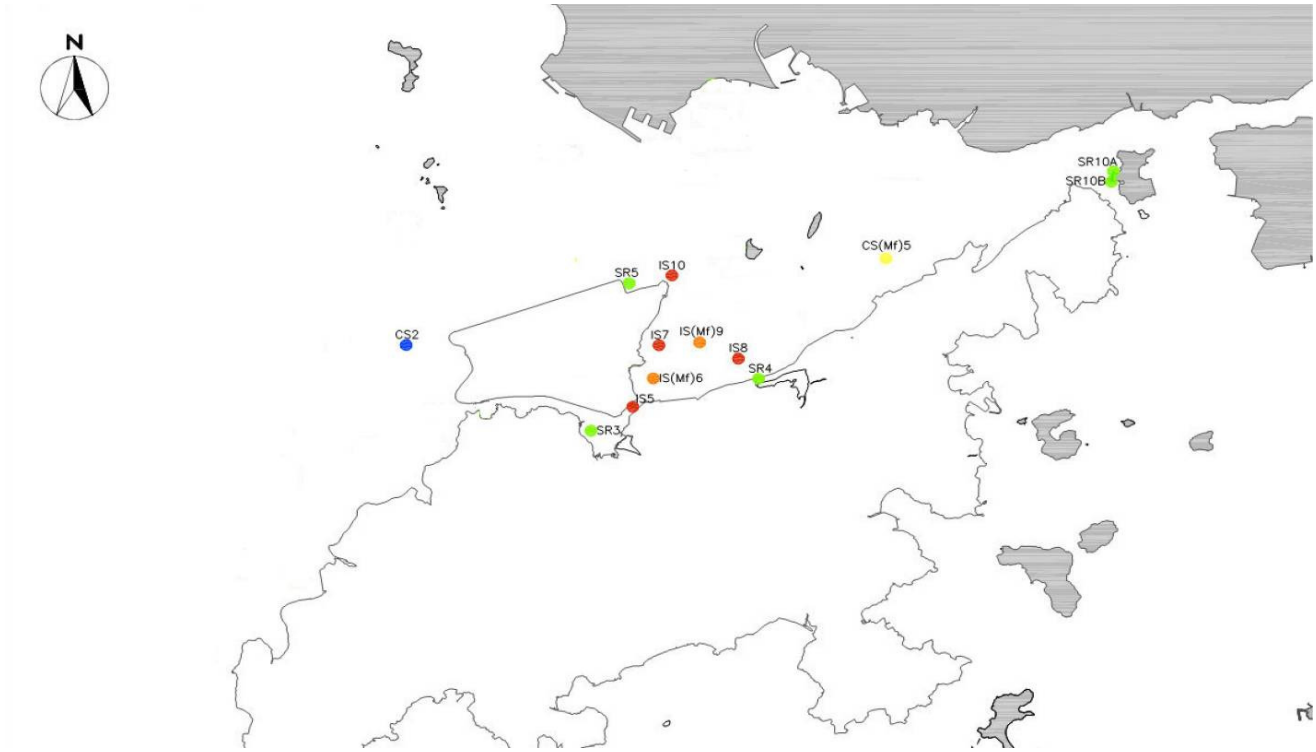
   The measured value at station SR4 was above the range of suspended solid during baseline monitoring for mid-flood tide. However, there were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.
3. No leakage of turbid water or any abnormity or malpractice was observed during the sampling exercise.

As such, the suspended solid level recorded at this station is considered to be attributed to other external factors rather than the contract works.

Actions taken/ to be taken:

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

Location Plan:



Reviewed by : Claudine Lee Title : ET Leader

Date : 7 November 2014

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.: 195

Date of Notification: 7 November 2014

Works Inspected: Data collected from water sampling works on 22 October 2014 and the test report was issued on 29 October 2014.

Monitoring Location: Water Quality Monitoring Stations

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	SR10A	DA	**23.5** and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 6.10 x 120% = **7.3** mg/L for mid ebb) AND CS(Mf)5: 3.38 x 120% = **4.1** mg/L for mid flood)	**34.4** and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 6.10 x 130% = **7.9** mg/L for mid ebb) AND CS(Mf)5: 3.38 x 130% = **4.4** mg/L for mid flood)	8.5	***26.3***
SS	SR10B	DA	**23.5** and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 6.10 x 120% = **7.3** mg/L for mid ebb) AND CS(Mf)5: 3.38 x 120% = **4.1** mg/L for mid flood)	**34.4** and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 6.10 x 130% = **7.9** mg/L for mid ebb) AND CS(Mf)5: 3.38 x 130% = **4.4** mg/L for mid flood)	8.5	***24.3***

Notes:
DA means depth average.
Bold Italic means AL exceedances.
Bold Italic with underline means LL exceedances.

Possible reason for Action or Limit Level Non-compliance:

On 22 October 2014, AL exceedances of suspended solid at stations SR10A and SR10B were recorded during mid-flood tide. The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reasons:

1. Seawall construction works at Zones 1 and 3A were carried out within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations SR10A and SR10B 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		
SR10A	3.6	to	17	4.8	to	19.2
SR10B	3.1	to	30.8	5.7	to	26.7

The measured value at station SR10B was within the range of suspended solid during baseline monitoring for mid-flood tide. The measured value at station SR10A was above the range of suspended solid during baseline monitoring for mid-flood tide. However, there were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.

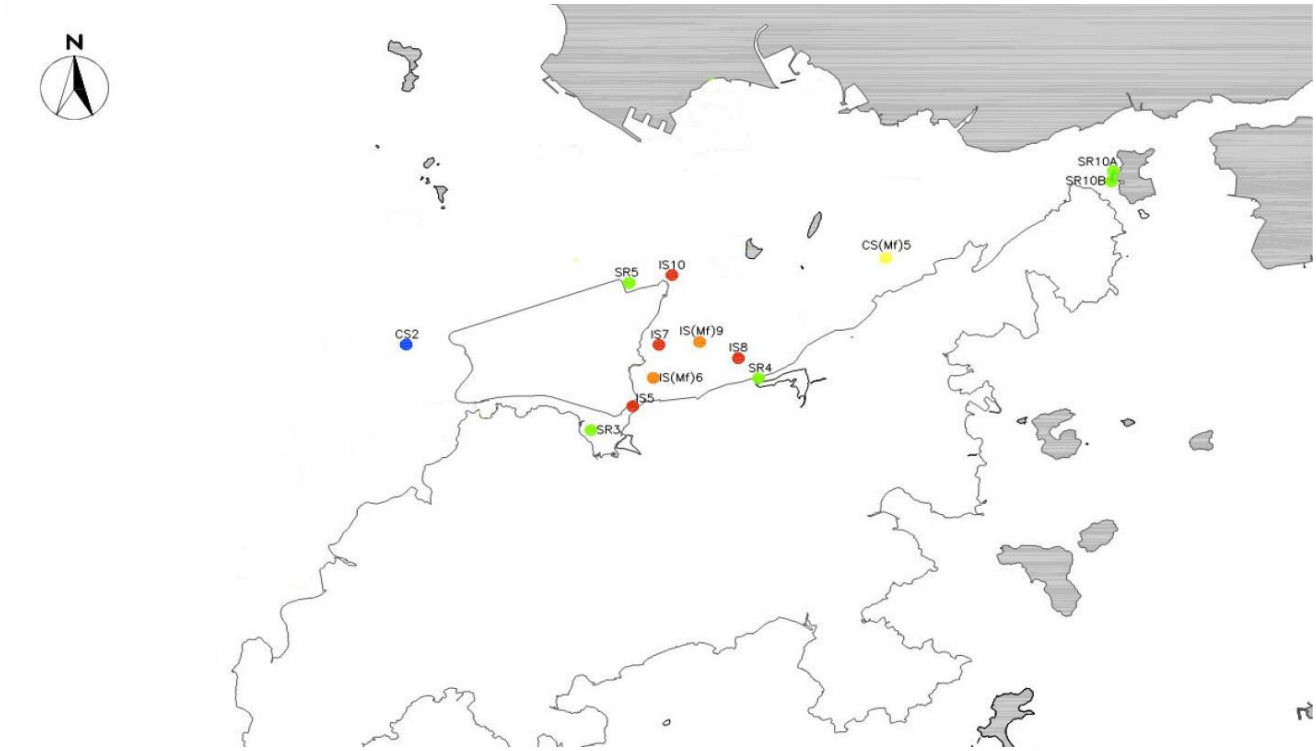
3. No leakage of turbid water or any abnormity or malpractice was observed during the sampling exercise.

As such, the suspended solid levels recorded at these stations are considered to be attributed to other external factors rather than the contract works.

Actions taken/ to be taken:

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

Location Plan:



Reviewed by : Claudine Lee Title : ET Leader

Date : 7 November 2014

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.: 196 ver1

Date of Notification: 11 November 2014

Works Inspected: 24-hr TSP monitoring was undertaken on 27 October 2014 and the test report was issued on 4 November 2014.

Monitoring Location: AMS6 – Dragonair Building (AMS6)

Parameter: 24-hour TSP monitoring

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

PARAMETER	STATION	AL (µg/m^3)	LL (µg/m^3)	MEASURED LEVEL, µg/m^3
24-hr TSP (8:00 – 8:00 hours)	Dragonair Building (AMS6)	173	260	***233***

Notes: ***Bold Italic*** means AL exceedance
Bold Italic with underline means LL exceedance

Possible reason for Action or Limit Level Non-compliance:

An Action Level exceedance of 24-hr TSP level was recorded at AMS6, Dragonair Building, on 27 October 2014.

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

Zone 1

- Seawall construction; and
- Transfer of fill material.

Zone 2

- Seawall construction; and
- Transfer of fill material.

The Air Quality Health Index recorded by EPD at the Tung Chung station during the sampling period ranged from 4 (moderate) to 6 (moderate).

According to information provided by the Contractor, fill material was sprayed with water to maintain the entire surface wet before loading and unloading and haul roads/dusty surfaces were properly sprayed with water. In addition, the measured 24-hour TSP level at AMS6 was 110 µg/m^3 on 31 October 2014 which was below the action and limit levels. Therefore, the exceedance might be caused by the other factors and is unlikely to be related to construction activities of the Contract.

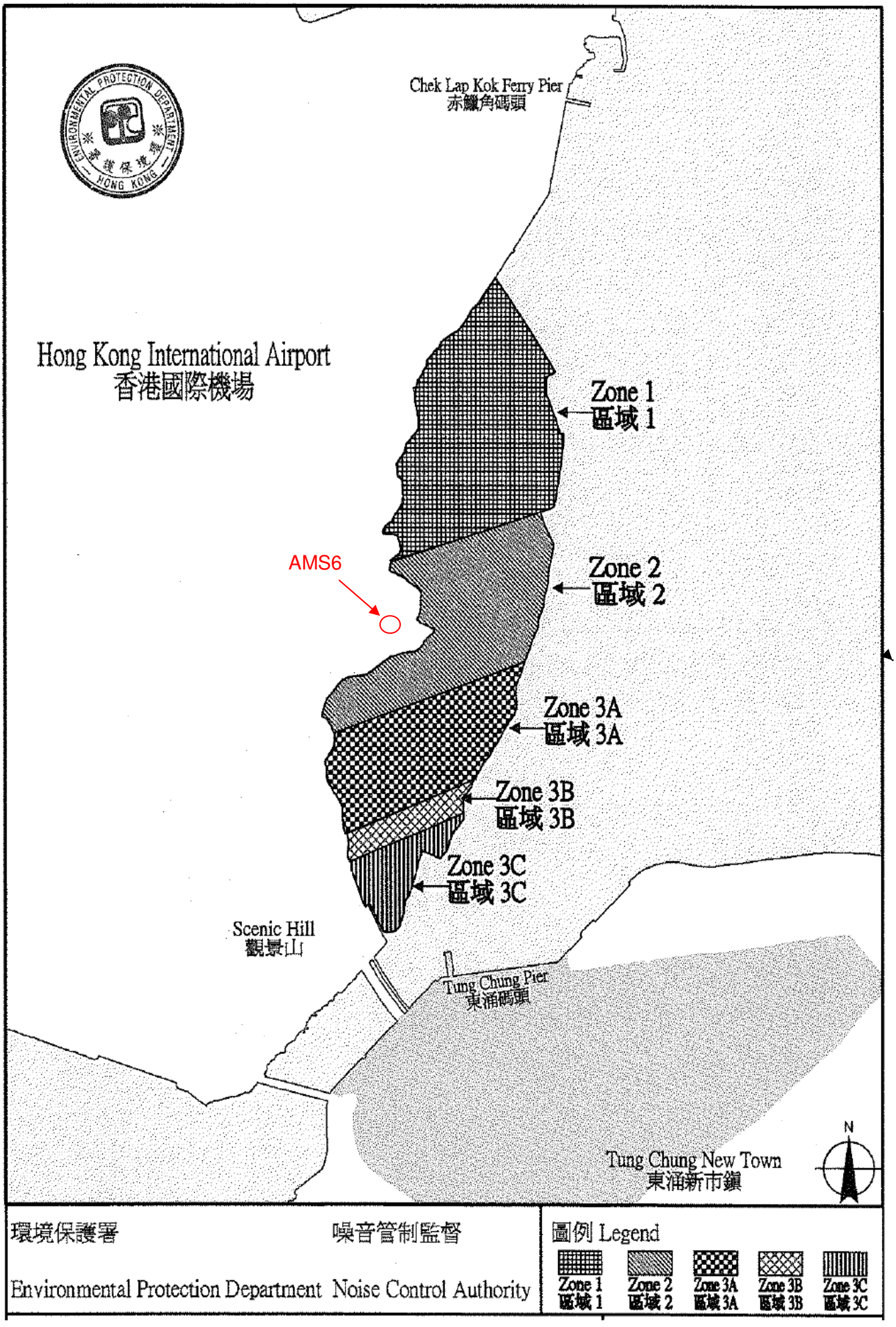
Actions taken/ to be taken:

As the 24-hr TSP exceedance was not related to project works, no immediate actions are considered necessary. However, the Contractor is reminded to implement dust control measures throughout the construction phase. .

Reviewed by : Claudine Lee Title : ET Leader

Date : 11 November 2014

Copied to : Supervising Officer, IEC, EPD, Contractor, ENPO


Chek Lap Kok Ferry Pier
赤鱲角碼頭
Hong Kong International Airport
香港國際機場
Zone 1
區域 1
AMS6
Zone 2
區域 2
Zone 3A
區域 3A
Zone 3B
區域 3B
Zone 3C
區域 3C
Scenic Hill
觀景山
Tung Chung Pier
東涌碼頭
Tung Chung New Town
東涌新市鎮
N
環境保護署
Environmental Protection Department
噪音管制監督
Noise Control Authority
圖例 Legend
Zone 1
區域 1
Zone 2
區域 2
Zone 3A
區域 3A
Zone 3B
區域 3B
Zone 3C
區域 3C

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.: 197

Date of Notification: 2 December 2014

Works Inspected: Data collected from water sampling works on 5 November 2014 and the test report was issued on 12 November 2014.

Monitoring Location: Water Quality Monitoring Stations

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	IS10	DA	**23.5** and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 9.42 x 120% = **11.3** mg/L for mid ebb) AND CS(Mf)5: 7.55 x 120% = **9.1** mg/L for mid flood)	**34.4** and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 9.42 x 130% = **12.2** mg/L for mid ebb) AND CS(Mf)5: 7.55 x 130% = **9.8** mg/L for mid flood)	6.1	***36.5***
SS	SR4	DA	**23.5** and 120% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 9.42 x 120% = **11.3** mg/L for mid ebb) AND CS(Mf)5: 7.55 x 120% = **9.1** mg/L for mid flood)	**34.4** and 130% of upstream control station's suspended solid at the same tide of the same day (i.e. CS2: 9.42 x 130% = **12.2** mg/L for mid ebb) AND CS(Mf)5: 7.55 x 130% = **9.8** mg/L for mid flood)	6.1	***24.9***

Notes:
DA means depth average.
Bold Italic means AL exceedances.
Bold Italic with underline means LL exceedances.

Possible reason for Action or Limit Level Non-compliance:

On 5 November 2014, a LL exceedance of suspended solid at station IS10 was recorded during mid-flood tide and an AL exceedance of suspended solid at station SR4 was recorded during mid-flood tide. The exceedances have been investigated and are considered unlikely to be related to contract works due to the following reasons:

1. Seawall construction works at Zones 1 and 2 were carried out within silt curtain as recommended in the EIA Report.
2. The ranges of suspended solid at stations IS10 and SR4 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		
IS10	6.1	to	20.2	7.2	to	16.0
SR4	5.3	to	20.0	5.6	to	24.5

The measured value at stations IS10 and SR4 were above the range of suspended solid during baseline monitoring for mid-flood tide. However, there were no specific activities recorded during the monitoring period that would cause any significant impacts on the monitoring results.

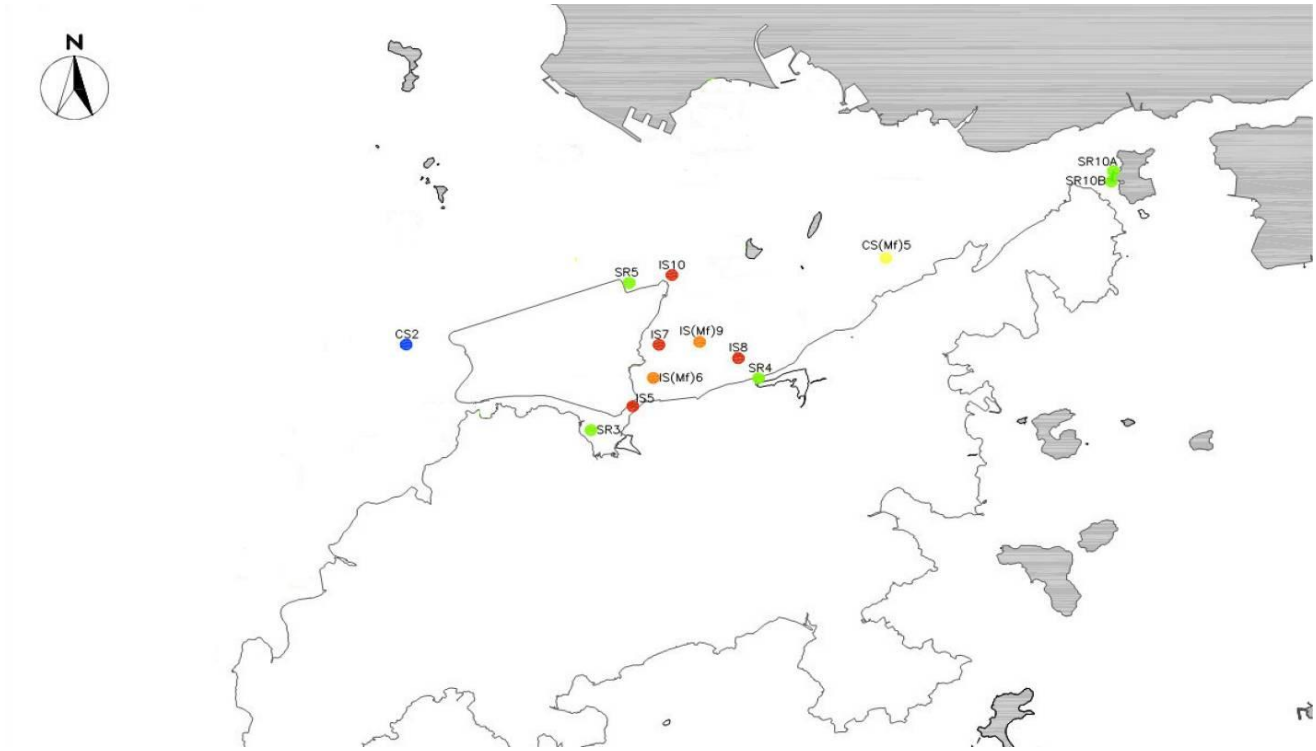
3. No leakage of turbid water or any abnormity or malpractice was observed during the sampling exercise.

As such, the suspended solid levels recorded at these stations are considered to be attributed to other external factors rather than the contract works.

Actions taken/ to be taken:

As the suspended solid levels recorded beyond the water quality criteria were not related to contract works, no immediate actions are considered necessary.

Location Plan:



Reviewed by : Claudine Lee Title : ET Leader

Date : 2 December 2014

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.: 198 ver2

Date of Notification: 14 May 2015

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 2014 - November 2014
	Action Level (AL)	Limit Level (LL)	
Northeast Lantau (NEL)	STG < 4.2 & ANI < 15.4	NEL: (STG < 2.4 & ANI <8.9) and NWL: (STG < 3.9 & ANI <17.9)	***STG = 0; ANI = 0***
Northwest Lantau (NWL)	STG < 6.9 & ANI < 31.3		***STG = 5.10; ANI = 20.52***

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

Possible reason for Action Level Non-compliance:

According to the contractor's information, the marine activities undertaken for HKLR03 during the quarter of September 2014 to November 2014 included stone platform construction, reclamation, stone column installation, band drain installation, excavation of stone platform, surcharge activities, construction of seawall and temporary drainage diversion.

There is no evidence showing the current AL non-compliance directly related to the construction works of HKLR03, although the generally increased amount of vessel traffic in NEL during the impact phase has been partly contributed by HKLR03 works since October 2012. It should also be noted that reclamation work under HKLR03 (adjoining the Airport Island) situates in waters which has rarely been used by dolphins in the past, and the working vessels under HKLR03 have been travelling from source to destination in accordance with the Marine Travel Route to minimize impacts on Chinese White Dolphin. In addition, the contractor will implement proactive mitigation measures such as avoiding anchoring at Marine Department's designated anchorage site – Sham Shui Kok Anchorage (near Brothers Island) as far as practicable.

Actions taken/ to be taken:

Inform the IEC, ER/SOR and Contractor
The ETL informed IEC, ENPO SOR and Contractor via email on 11 December 2014.

Repeat statistical data analysis to confirm findings and check monitoring data:

A two-way ANOVA with repeated measures and unequal sample size was conducted to examine whether there were any significant differences in the average encounter rates between the baseline and impact monitoring periods. The two variables that were examined included the two periods (baseline and impact phases) and two locations (NEL and NWL).

For the comparison between the baseline period and the present quarter (eighth quarter of the impact phase), the p-value for the differences in average dolphin encounter rates of STG and ANI were 0.0222 and 0.0662 respectively. If the alpha value is set at 0.1, significant difference was detected between the baseline and present quarters in both encounter rates of STG and ANI.

For the comparison between the baseline period and the cumulative quarters in impact phase (i.e. first eight quarters of the impact phase), the p-value for the differences in average dolphin encounter rates of STG and ANI were 0.0019 and 0.0006 respectively. Even if the alpha value is set at 0.01, significant difference was detected in both the average dolphin encounter rates of STG and ANI (i.e. between the two periods and the locations).

Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences:

The AFCD monitoring data during September to November 2014 has been reviewed by the dolphin specialist, and no dolphin was sighted from 108.93 km of survey effort on primary lines in NEL during the same quarter. This review has confirmed that the extremely low occurrence of dolphins reported by the HKLR03 monitoring survey in autumn 2014 in NEL is accurate.

Identify source(s) of impact:

There is no evidence showing that the sources of impact directly related to the construction works of HKLR03 that may have affected the dolphin usage in the NEL region.

Recommendations/ mitigation measures/ actions if necessary:

Review to ensure all the dolphin protective measures are fully and properly implemented and advise on additional measures if necessary:

All dolphin protective measures are fully and properly implemented in accordance with the EM&A Manual. The Contractor will continue to provide training for skippers to ensure that their working vessels travel from source to destination to minimize impacts on Chinese White Dolphin and avoid anchoring at Marine Department's designated anchorage site - Sham Shui Kok Anchorage (near Brothers Island) as far as practicable.

A meeting was held on 9 December 2014 with attendance of ENPO, Resident Site Staff (RSS), Environmental Team (ET) and dolphin specialist for Contract No. HY/2010/02, RSS, ET, dolphin specialist and main Contractor for Contract No. HY/2011/03. The discussion/recommendation as recorded in the minutes of the meeting, which might be relevant to HKLR03 Contract are summarized below.

It was concluded that the 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.

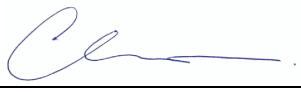
It was recommended that the marine works of HZMB projects should be completed as soon as possible so as to reduce the overall duration of impacts and allow the dolphins population to recover as early as possible.

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 team for HY/2010/02 advised that the contractor was already using large capacity sand barge so as to reduce the number of vessel traffics, and had already submitted a proposal to resize the peripheral silt curtain.

It was suggested that the protection measures (e.g., speed limit control) for the proposed Brothers Island Marine Park (BMP) shall be brought forward as soon as possible before its establishment so as to provide a better habitat for dolphin recovery. It was noted that under the Regular Marine Travel Route Plan, the contractors have committed to reduce the vessel speed in BMP.

There was a discussion on exploring possible further mitigation measures, for example, controlling the underwater noise. It was noted that the EIA reports for the projects suggested several mitigation measures, all of which have been implemented.

Reviewed by : Claudine Lee Title : ET Leader



Date : 14 May 2015

Copied to : Supervising Officer, ENPO, IEC, EPD, Contractor

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