

Contract No. HY/2014/05 - Hong Kong- Zhuhai- Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities Notifications of Environmental Quality Limits Exceedances Notification No.: 20180117_Air_24hr_v1				
Date of Investigation Report: 20 February 2018				
Date of Environmental Quality Limit Exceedance: 17 January 2018 and the results were issued on 29 January 2018				
Monitoring Location: AMS2 – Tung Chung Pier and : AMS3B – Site Boundary of Site Office Area at Works Area WA2 (The air quality monitoring stations for the Contract is covered by Contract No. HY/2013/01 HZMB HKBCF – Passenger Clearance Building)				
Monitoring Date: 17 January 2018 Start Time: 08:00				
Action & Limit Level (AL & LL) / Measured Level:				
<u>PARAMETER</u>	<u>STATION</u>	<u>AL (µg/m³)</u>	<u>LL (µg/m³)</u>	<u>MEASURED LEVEL, µg/m³</u>
24-hr TSP	AMS2 – Tung Chung Pier	176	260	<i>184</i>
24-hr TSP	AMS3B – Site Boundary of Site Office Area at Works Area WA2	167	260	<i>183</i>
Notes: <i>Bold Italic</i> means AL exceedance <i><u>Bold Italic with underline</u></i> means LL exceedance				

Possible reason for Action / Limit Level Non-compliance:

On 17 January 2018, one AL exceedance of 24-hr TSP at AMS2 and one AL exceedance of 24-hr TSP at AMS3B were recorded.

Based on the information from the Contractor, the construction works undertaken on 17 and 18 January 2018 are shown as below:

- Architectural Builder's Work and Finishes (ABWF) & Mechanical, Electrical and Plumbing (MEP) works (Internal) of Buildings 022, 023, 025, 032, 044, 045, 050H1, 050H2, 050A1, 050A2, 053, 058
- ABWF works (external) of Buildings 021, 022, 023, 032, 044, 045, 050H1, 050H2, 050A1, 050A2
- ABWF works (roof) of Buildings 032, 044, 050H1, 050H2, 050A1, 050A2
- Foot Path, Utilities and Drainage installation of Buildings 021, 022, 023, 032, 045, 053, 058



The Contractor confirmed that the mitigation measures according to Water Spraying Plan in January 2018 (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.

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 10+ (Low to Serious) on 17 and 18 January 2018 during monitoring period. According to the wind data at on-site wind station, no prevailing wind direction was found in the monitoring period. The RABF site of HKBCF is far away from AMS2 and AMS3B (more than 1km). No potential dust source was observed near the monitoring station at AMS2 and 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 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>Ruby Law</u>	Title:	<u>Environmental Team Representative</u>
Signature:		Date:	<u>20 February 2018</u>
Checked by:	<u>Keith Chau</u>	Title:	<u>Environmental Team Leader</u>
Signature:		Date:	<u>20 February 2018</u>
Copied to	: Contractor, Engineer Representative and IEC/ENPO		

Contract No. HY/2014/05
Hong Kong – Zhuhai – Macao – Bridge
Boundary Crossing Facility – Remaining Ancillary Buildings and Facilities

Watering Plan for January 2018

Water Truck License Plate Number: PJ9039, SE4312

Capacity of a Water Truck: 15000L

Volume of water/ distance needed to water spraying: = 7.3 L/m

Water Truck could spray 15000L in one 59 minutes trip.

Planned Schedule of Watering Spraying by Water Truck

Cycle	Truck No.	Time of water spraying
1	PJ9039	08:00 – 09:15
2	SE4312	09:15 – 10:30
3	PJ9039	10:30 – 11:45
4	SE4312	13:00 – 14:15
5	PJ9039	14:15 – 15:30
6	SE4312	15:30 – 16:45
7	PJ9039	16:45 – 18:00
8	SE4312	18:00 – 19:00

Water spraying record during TSP 24-hr monitoring on 17 and 18 January 2018

<p>Location 1</p> 	<p>Location 2</p> 
<p>Location 3</p> 	

Appendix B

Date	Hour	AQHI at Tung Chung Station	Average Wind Speed (m/s) #	Average Wind Direction #
17/01/2018	08:00	6	0	SW
17/01/2018	09:00	6	0	SW
17/01/2018	10:00	6	0	SSW
17/01/2018	11:00	8	0	SSW
17/01/2018	12:00	10	0	W
17/01/2018	13:00	10+	0	---
17/01/2018	14:00	10+	0	W
17/01/2018	15:00	10+	0	W
17/01/2018	16:00	10+	0	W
17/01/2018	17:00	10+	0	W
17/01/2018	18:00	10+	0	E
17/01/2018	19:00	10+	0	---
17/01/2018	20:00	9	0	SSE
17/01/2018	21:00	6	0	SSE
17/01/2018	22:00	5	0	E
17/01/2018	23:00	5	0	SE
18/01/2018	00:00	5	0	SSE
18/01/2018	01:00	4	0	E
18/01/2018	02:00	4	0	SE
18/01/2018	03:00	4	0	SSE
18/01/2018	04:00	4	0	SE
18/01/2018	05:00	4	0	SSE
18/01/2018	06:00	3	0	SSW
18/01/2018	07:00	3	0	---
18/01/2018	08:00	3	0	---

Remark:

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