

Environmental Permit No.: EP-451/2013
Environmental Team for Trunk Road T2

Appendix M – Summary of Exceedance

Reporting Month: January 2021

(A) Exceedance Report for Air Quality

Five (5) Action Level and One (1) Limit Level exceedance of 24hr TSP monitoring was recorded in this reporting month.

Monitoring Station	Start Date	Conc. ($\mu\text{g}/\text{m}^3$)	Level exceeded
CKL 1	14 Jan 2021	269.4	Limit level
KTD 2c	04 Jan 2021	215.7	Action Level
	14 Jan 2021	204.0	
	20 Jan 2021	160.9	
	26 Jan 2021	204.1	
KER 1	20 Jan 2021	226.3	

The investigation results for the exceedance are attached as below.

(B) Exceedance Report for Construction Noise

Action Level for Construction Noise

No Action Level exceedance was recorded in this reporting month.

Limit Level for Construction Noise

No Limit Level exceedance for daytime construction noise monitoring was recorded in the reporting month.

(C) Summary of Landscape and Visual Non-Conformity
(NIL in the reporting month)

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- Notification of Exceedances

NOE No. 210104_24hrTSP (KTD2c) **Exceedance Level:** Action

Date of Air Quality Monitoring: 04 January 2021

Part A – Exceedance Summary Tables

Table I: Parameter(s) – 24-hour TSP

Station	Location	Starting Time	Weather Condition	Conc. (µg/m ³)	Action Level (µg/m ³)	Limit Level (µg/m ³)	Level exceeded
KTD2c	G/IC Zone next to Kwun Tong Bypass (Next to the Kowloon Bay Sewage Interception Station)	09:00	Sunny	<i>215.7</i>	157.0	260.0	Action

Note: ***Bold Italic*** means Action Level exceedance
Bold Italic with underline means Limit Level exceedance

Part B – Major Source of Parameter Monitored

Field Observation(s) and Finding(s)

(a) Statement of exceedance(s) 24-hour TSP monitoring measured at KTD 2c on 4 January 2021 exceeded the action level.
(b) Cause of exceedance(s) According to the observation of our field staff, the major dust source(s) and/or reason(s) for exceedance identified at KTD2c is/are as follow: <ol style="list-style-type: none"> 1. Breaking works were carried out near the monitoring station KTD2c. (approximately 5m between the breaker and HVS) (See Photo 1and 2) 2. Dry weather 3. Dust reduction measure, i.e. watering the unpaved road on site, was observed. (See Photo 3 and 4)

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Photo Record (Photo Taken by ET)



Photo 1



Photo 2



Photo 3



Photo 4

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Part C – Conclusion

Based on the finding(s) and observation(s) above, we deduce the Action Level exceedance of 24-hour TSP recorded at station KTD2c on 04 January 2021 is due to the construction activities were conducted where very close to the HVS. Therefore, the exceedance is considered as project related.

Part D – Recommendation

The following construction dust mitigation measures shall always to be implemented on site to reduce/ minimize the generation of dust due to the construction activities.

1. Watering of the construction areas 12 times per day to reduce dust emissions.
2. Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions.
3. Open stockpiles shall be avoided or covered.
4. Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations
5. Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.
6. Imposition of speed controls for vehicles on unpaved site roads, 8 km per hour is the recommended limit

Part E – Follow-up Action Taken

According to the Event and Action Plan of the EM&A Manual of Trunk Road T2 project under EP-451/2013, the follow-up action of this exceedance is/are taken by ET as follow:

1. An addition air quality monitoring has been carried out on 28 January 2021, and no action and limit level exceedance was recorded. The monitoring results is tabulated as below:

Location KTD2c - G/IC Zone next to Kwun Tong Bypass (Next to the Kowloon Bay Sewage Interception Station)				
Date	Time	Weather	Parameter	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
28-Jan-21	12:11	Sunny	1hr TSP	110.0
	13:11	Sunny		100.0
	14:11	Sunny		108.0

2. The remedial measures proposed by the contractor was reviewed during site audit and ET has no adverse comments on the proposed remedial measures. The photo records provided by contractor are shown as below:

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Photo Record (Provided by Contractor)



Photo 5 – Watering of main haul road



Photo 6 – Water spraying during dusty activities



Photo 7 – Water spraying during dusty activities



Photo 8 – Water spraying during dusty activities



Photo 9 – Watering of unpaved road



Photo 10 – Watering of unpaved road

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NOE No. 210120_24hrTSP (KER1) **Exceedance Level:** Action

Date of Air Quality Monitoring: 20 January 2021

Part A – Exceedance Summary Tables

Table I: Parameter(s) – 24-hour TSP

Station	Location	Starting Time	Weather Condition	Conc. (µg/m ³)	Action Level (µg/m ³)	Limit Level (µg/m ³)	Level exceeded
KER1	Future Residential Development at Kerry Godown	09:00	Sunny	<i>226.3</i>	172.0	260.0	Action

Note: ***Bold Italic*** means Action Level exceedance
 Bold Italic with underline means Limit Level exceedance

Part B – Major Source of Parameter Monitored

Field Observation(s) and Finding(s)

(a)	Statement of exceedance(s) 24-hour TSP monitoring measured at KER1 on 20 January 2021 exceeded the action level.
(b)	Cause of exceedance(s) According to the observation of our field staff, the major dust source(s) and/or reason(s) for exceedance identified at KER1 is/are as follow: 1. Open stockpiles of excavated dusty material were found. (See Photo 1, and Photo 2) 2. Road traffic along Kai Hing Road.

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Photo Record (Photo Taken by ET)



Photo 1



Photo 2

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Part C – Conclusion

Based on the finding(s) and observation(s) above, we deduce the action level exceedance recorded at KER1 on 20 January was due to the large amount of open stockpiles of excavated dusty material and insufficiency of dust suppression was implemented. Moreover, we deduce the fluctuation of road traffic along Kai Hing Road contributed to the exceedance but not the major dust source. To sum up, the exceedance is considered as project related

Part D – Recommendation

The following construction dust mitigation measures shall always to be implemented on site to reduce/ minimize the generation of dust due to the construction activities.

1. Watering of the construction areas 12 times per day to reduce dust emissions.
2. Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions.
3. Open stockpiles shall be avoided or covered.
4. Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.
5. Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.
6. Imposition of speed controls for vehicles on unpaved site roads, 8 km per hour is the recommended limit.
7. Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.

Part E – Follow-up Action Taken

According to the Event and Action Plan of the EM&A Manual of Trunk Road T2 project under EP-451/2013, the follow-up action of this exceedance is/are taken by ET as follow:

1. Informed the other parties (i.e. IEC and ER) once the action level exceedance was recorded.
2. The remedial measures proposed by the contractor was reviewed during site audit and ET has no adverse comments on the proposed remedial measures. The photo records provided by contractor are shown as below:

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Photo Record (Provided by Contractor)



Photo 3 – Tarpaulin covering of open stockpile



Photo 4 – Tarpaulin covering of open stockpile



Photo 5 – Tarpaulin covering of open stockpile



Photo 6 – Watering of main haul road

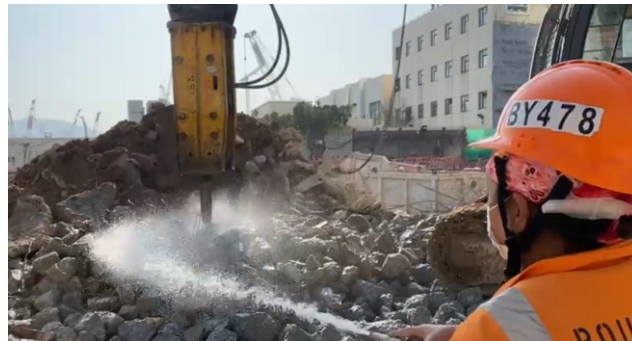


Photo 7 – Water spraying during dusty activities



Photo 8 – Watering of main haul road

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- Notification of Exceedances

NOE No. 210120_24hrTSP (KTD2c) **Exceedance Level:** Action

Date of Air Quality Monitoring: 20 January 2021

Part A – Exceedance Summary Tables

Table I: Parameter(s) – 24-hour TSP

Station	Location	Starting Time	Weather Condition	Conc. (µg/m ³)	Action Level (µg/m ³)	Limit Level (µg/m ³)	Level exceeded
KTD2c	G/IC Zone next to Kwun Tong Bypass (Next to the Kowloon Bay Sewage Interception Station)	09:00	Sunny	<i>160.9</i>	157.0	260.0	Action

Note: ***Bold Italic*** means Action Level exceedance
Bold Italic with underline means Limit Level exceedance

Part B – Major Source of Parameter Monitored

Field Observation(s) and Finding(s)

(a) Statement of exceedance(s) 24-hour TSP monitoring measured at KTD2c on 20 January 2021 exceeded the action level.
(b) Cause of exceedance(s) According to the observation of our field staff, the major dust source(s) and/or reason(s) for exceedance identified at KTD2c is/are as follow: <ol style="list-style-type: none"> 1. Material handling was carried out near the monitoring station KTD2c. (approximately 10m between the excavator and HVS) (See Photo 1) . 2. A Stockpile of excavated dusty material with no impervious sheet covered was observed. (See Photo 2) 3. It was observed that unpaved roads were watered to avoid dust generation. (See Photo 3) 4. Road Traffic along the Kwun Tong Bypass.

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Photo Record (Photo Taken by ET)



Photo 1



Photo 2



Photo 3

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Part C – Conclusion

Based on the finding(s) and observation(s) above, we deduce the action Level exceedance of 24-hour TSP recorded at station KTD2c on 20 January 2021 is due to the insufficiency of dust reduction measure. Also, the construction activities were conducted very close to the HVS. Therefore, the exceedance is considered as project related

Part D – Recommendation

The following construction dust mitigation measures shall always to be implemented on site to reduce/ minimize the generation of dust due to the construction activities.

1. Watering of the construction areas 12 times per day to reduce dust emissions.
2. Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions.
3. Open stockpiles shall be avoided or covered.
4. Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.
5. Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.
6. Imposition of speed controls for vehicles on unpaved site roads, 8 km per hour is the recommended limit.
7. Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.

Part E – Follow-up Action Taken

According to the Event and Action Plan of the EM&A Manual of Trunk Road T2 project under EP-451/2013, the follow-up action of this exceedance is/are taken by ET as follow:

1. Informed the other parties (i.e. IEC and ER) once the action level exceedance was recorded.
2. As several exceedances of 24-hour TSP monitoring were recorded consecutively, ET was aware of this issue and carried out the further investigation. After the investigation, ET found that the present environmental monitoring at KTD2c cannot accurately represent how the sensitive receivers (SR) are being affected by the construction activities, as the SR (Future Hospital at Site 3C1) is still under construction. Hence, ET was proposed to IEC to have a relocation of monitoring station, and informed this matter to ER.
3. An additional air quality monitoring was carried out on 4 February 2020, and no action and limit level exceedance was recorded. The monitoring results is tabulated as below:

Location KTD2c - G/IC Zone next to Kwun Tong Bypass (Next to the Kowloon Bay Sewage Interception Station)				
Date	Time	Weather	Parameter	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
04-Feb-21	09:24	Sunny	1hr TSP	53.2
	10:24	Sunny		60.8
	11:24	Sunny		47.5

4. The remedial measures proposed by the contractor was reviewed during site audit and ET has no adverse comments on the proposed remedial measures. The photo records provided by contractor are shown as below:

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Photo Record (Provided by Contractor)



Photo 4 – Watering of main haul road



Photo 5 – Watering of main haul road



Photo 6 – Water spraying during dusty activities



Photo 7 – Watering of unpaved road

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NOE No. 210114_24hrTSP (KTD2c) **Exceedance Level:** Action

Date of Air Quality Monitoring: 14 January 2021

Part A – Exceedance Summary Tables

Table I: Parameter(s) – 24-hour TSP

Station	Location	Starting Time	Weather Condition	Conc. (µg/m ³)	Action Level (µg/m ³)	Limit Level (µg/m ³)	Level exceeded
KTD2c	G/IC Zone next to Kwun Tong Bypass (Next to the Kowloon Bay Sewage Interception Station)	09:00	Fine	<i>204.0</i>	157.0	260.0	Action

Note: ***Bold Italic*** means Action Level exceedance
Bold Italic with underline means Limit Level exceedance

Part B – Major Source of Parameter Monitored

Field Observation(s) and Finding(s)

<p>(a) Statement of exceedance(s)</p> <p>24-hour TSP monitoring measured at KTD 2c on 14 January 2021 exceeded the action level.</p>
<p>(b) Cause of exceedance(s)</p> <p>According to the observation of our field staff, the major dust source(s) and/or reason(s) for exceedance identified at KTD2c is/are as follow:</p> <ol style="list-style-type: none"> 1. Breaking works were carried out near the monitoring station KTD2c. (approximately 10m between the breaker and HVS) (See Photo 1) 2. Observable dust sources, such as wind erosion, loading and unloading of material, and vehicle movement on site, were identified. 3. Crashing of material with watering was conducted next to the monitoring station. (approximately 15m between the excavator mounted bucket crusher and HVS) (See Photo 2 and 3). 4. Dust reduction measure, i.e. watering the unpaved road on site, was observed. 5. A Stockpile of excavated dusty material with no impervious sheet covered was observed. (See Photo 4 and 5)

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Photo Record (Photo Taken by ET)



Photo 1



Photo 2

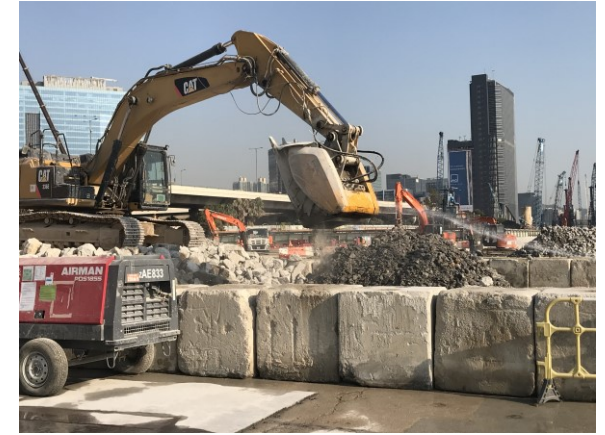


Photo 3



Photo 4



Photo 5

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Part C – Conclusion

Based on the finding(s) and observation(s) above, it was observed that insufficient dust reduction measure was carried out to reduce emission during crashing activity, and the construction activities were conducted very close to the HVS. Therefore, the exceedance is considered as project related.

Part D – Recommendation

The following construction dust mitigation measures shall always to be implemented on site to reduce/ minimize the generation of dust due to the construction activities.

1. Watering of the construction areas 12 times per day to reduce dust emissions.
2. Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions.
3. Open stockpiles shall be avoided or covered.
4. Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.
5. Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.
6. Imposition of speed controls for vehicles on unpaved site roads, 8 km per hour is the recommended limit.
7. Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.

Part E – Follow-up Action Taken

According to the Event and Action Plan of the EM&A Manual of Trunk Road T2 project under EP-451/2013, the follow-up action of this exceedance is/are taken by ET as follow:

1. Informed the other parties (i.e. IEC and ER) once the action level exceedance was recorded.
2. As several exceedances of 24-hour TSP monitoring were recorded consecutively, ET was aware of this issue and carried out the further investigation. After the investigation, ET found that the present environmental monitoring at KTD2c cannot accurately represent how the sensitive receivers (SR) are being affected by the construction activities, as the SR (Future Hospital at Site 3C1) is still under construction. Hence, ET was proposed to IEC to have a relocation of monitoring station, and informed this matter to ER.
3. The remedial measures proposed by the contractor was reviewed during site audit and ET has no adverse comments on the proposed remedial measures. The photo records provided by contractor are shown as below:

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Photo Record (Provided by Contractor)



Photo 6 – Watering of main haul road

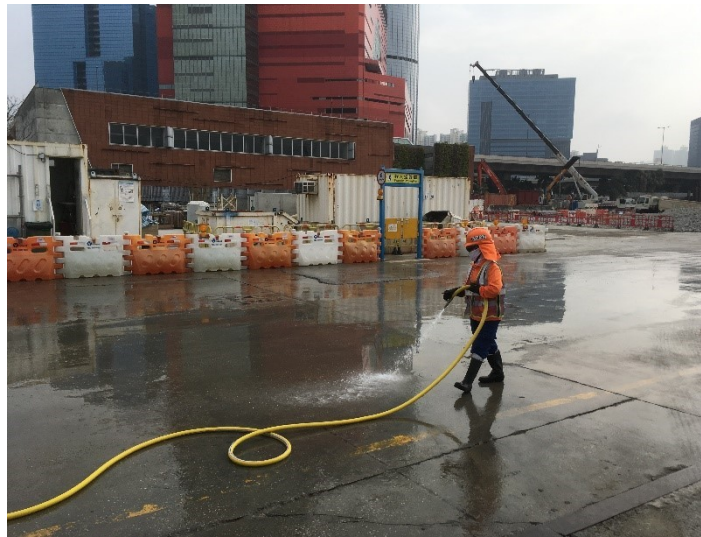


Photo 7 – Watering of main haul road

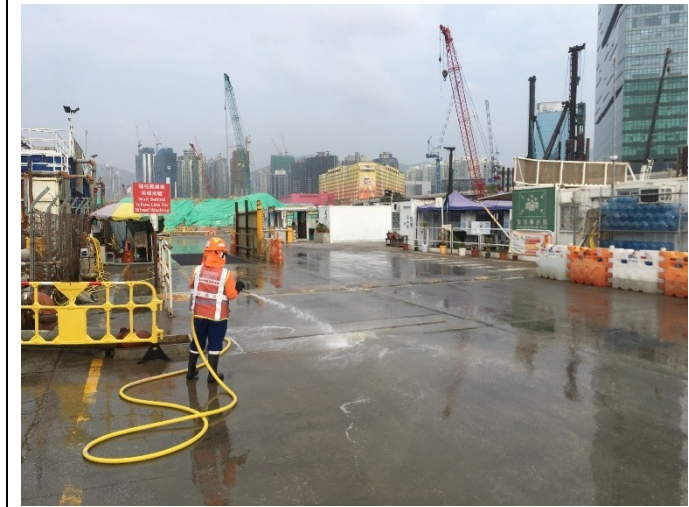


Photo 8 – Watering of main haul road



Photo 9 – Water spraying during dusty activities



Photo 10 – Watering of unpaved road



Photo 11 – Tarpaulin covering of open stockpile

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- Notification of Exceedances

NOE No. 210114_24hrTSP (CKL1) **Exceedance Level:** Limit

Date of Air Quality Monitoring: 14 January 2021

Part A – Exceedance Summary Tables

Table I: Parameter(s) – 24-hour TSP

Station	Location	Starting Time	Weather Condition	Conc. ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)	Level exceeded
CKL1	Flat 121 Cha Kwo Ling Village	09:00	Fine	<u>269.4</u>	191.0	260.0	Limit

Note: ***Bold Italic*** means Action Level exceedance
 Bold Italic with underline means Limit Level exceedance

Part B – Major Source of Parameter Monitored

Field Observation(s) and Finding(s)

<p>(a) Statement of exceedance(s)</p> <p>24-hour TSP monitoring measured at CKL1 on 14 January 2021 exceeded the limit level.</p>
<p>(b) Cause of exceedance(s)</p> <p>According to the observation of our field staff and the information provided by ER and Contractor, the major dust source(s) and/or reason(s) for exceedance identified at CKL1 is/are as follow:</p> <ol style="list-style-type: none"> 1. No major construction activities carried out at CKL was observed. 2. ER and Contractor confirmed that the Portion T1 was closed on 14 January 2021 due to the COVID-19 pandemic.

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Part C – Conclusion

Based on the finding(s) and observation(s) above, we deduce the Limit Level exceedance of 24-hour TSP recorded at station CKL1 on 14 January 2021 is due to fluctuation of road traffic but not construction activity, therefore, the exceedance is considered as non-project related.

Part D – Recommendation

Although the exceedance is considered as non-project related, contractor is reminded that the following construction dust mitigation measures shall always to be implemented on site to reduce/ minimize the generation of dust due to the construction activities.

1. Watering of the construction areas 12 times per day to reduce dust emissions.
2. Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions.
3. Open stockpiles shall be avoided or covered.
4. Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.
5. Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.
6. Imposition of speed controls for vehicles on unpaved site roads, 8 km per hour is the recommended limit.
7. Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.

Part E – Follow-up Action Taken

According to the Event and Action Plan of the EM&A Manual of Trunk Road T2 project under EP-451/2013, the follow-up action of this exceedance is/are taken by ET as follow:

1. Informed the investigation result to other parties (i.e., IEC and ER).
2. ET will always pay attention to the implementation of mitigation measures by Contractor and advise the ER on the effectiveness of such measures.

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NOE No. 210126_24hrTSP (KTD2c) **Exceedance Level:** Action

Date of Air Quality Monitoring: 26 January 2021

Part A – Exceedance Summary Tables

Table I: Parameter(s) – 24-hour TSP

Station	Location	Starting Time	Weather Condition	Conc. (µg/m ³)	Action Level (µg/m ³)	Limit Level (µg/m ³)	Level exceeded
KTD2c	G/IC Zone next to Kwun Tong Bypass (Next to the Kowloon Bay Sewage Interception Station)	09:00	Sunny	<i>204.1</i>	157.0	260.0	Action

Note: ***Bold Italic*** means Action Level exceedance
Bold Italic with underline means Limit Level exceedance

Part B – Major Source of Parameter Monitored

Field Observation(s) and Finding(s)

(a) Statement of exceedance(s) 24-hour TSP monitoring measured at KTD2c on 26 January 2021 exceeded the action level.
(b) Cause of exceedance(s) According to the observation of our field staff, the major dust source(s) and/or reason(s) for exceedance identified at KTD2c is/are as follow: <ol style="list-style-type: none"> 1. A stockpile of excavated dusty material with no impervious sheet covered was observed. (See Photo 1 and Photo 4) 2. Road Traffic along the Kwun Tong Bypass 3. It was observed that paved roads were watered to avoid dust generation. (See Photo 2) 4. Piling work was carried out near the monitoring station KTD2c. (approximately 5m) (See Photo 3).

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Photo Record (Photo Taken by ET)



Photo 1



Photo 2



Photo 3



Photo 4

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Part C – Conclusion

Based on the finding(s) and observation(s) above, we deduce the action Level exceedance of 24-hour TSP recorded at station KTD2c on 26 January 2021 is due to the insufficiency of dust reduction measure. Also, the construction activities were conducted very close to the HVS. Therefore, the exceedance is considered as project related.

Part D – Recommendation

The following construction dust mitigation measures shall always to be implemented on site to reduce/ minimize the generation of dust due to the construction activities.

1. Watering of the construction areas 12 times per day to reduce dust emissions.
2. Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions.
3. Open stockpiles shall be avoided or covered.
4. Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.
5. Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.
6. Imposition of speed controls for vehicles on unpaved site roads, 8 km per hour is the recommended limit.
7. Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.

Part E – Follow-up Action Taken

According to the Event and Action Plan of the EM&A Manual of Trunk Road T2 project under EP-451/2013, the follow-up action of this exceedance is/are taken by ET as follow:

1. Informed the other parties (i.e. IEC and ER) once the action level exceedance was recorded.
2. As several exceedances of 24-hour TSP monitoring were recorded consecutively, ET was aware of this issue and carried out the further investigation. After the investigation, ET found that the present environmental monitoring at KTD2c cannot accurately represent how the sensitive receivers (SR) are being affected by the construction activities, as the SR (Future Hospital at Site 3C1) is still under construction. Hence, ET was proposed to IEC to have a relocation of monitoring station, and informed this matter to ER.
3. The remedial measures proposed by the contractor was reviewed during site audit and ET has no adverse comments on the proposed remedial measures. The photo records provided by contractor are shown as below:

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Photo Record (Provided by Contractor)



Photo 5 – Watering of main haul road



Photo 6 – Watering of main haul road

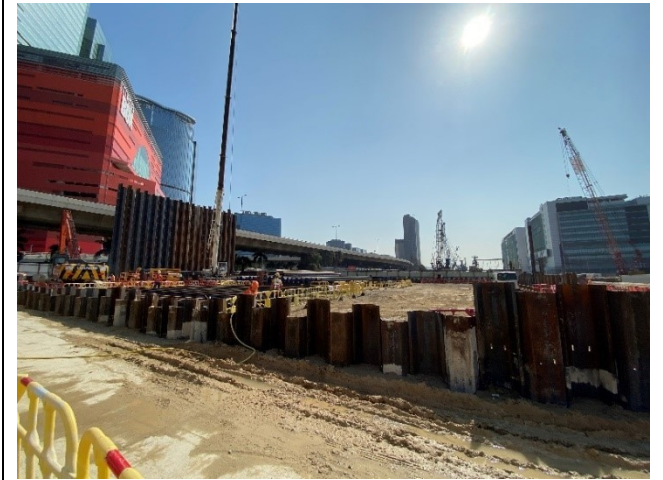


Photo 7 – Water spraying during dusty activities



Photo 8 – Tarpaulin covering of open stockpile



Photo 9 – Watering of unpaved road