

Annex D7

Investigation Reports of
Environmental Quality
Limit Exceedance

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	13 April 2023
Time	8:00 (13 April 2023) – 8:00 (14 April 2023)
Monitoring Location	AM1
Parameter	24-hour Total Suspended Particulates (TSP)
Action / Limit Levels	Action level: >260 µg/ m ³ Limit level: >260 µg/ m ³
Measured Level	365 µg / m ³
Possible reason	<p>From the meteorological data obtained from the SENTX on-site meteorological monitoring station, a predominantly east-southeasterly to easterly wind with highest wind speed 3.2 m/s was recorded on 13 and 14 April 2023 during the sampling event.</p> <p>On 13 April 2023, dust and traffic emission from the SENT landfill in vicinity and located at the east of dust monitoring location AM1 were observed. The sample taken at AM1 on the day might not represent the operation dust emission from SENTX.</p> <p>In addition, no SENTX works which may lead to potential dust emission was conducted in the vicinity of dust monitoring location AM1 on the sampling day based on on-site observations and construction and operation activities as described by the Contractor. Environmental deficiency was not observed during the weekly site inspection on 13 April 2023. The Contractor has implemented the dust control and mitigation measures recommended in the updated EM&A Manual.</p> <p>In accordance with Table 3.8b of the updated EM&A Manual, repeat measurement was conducted on 19 April 2023 to confirm findings. 24-hour TSP level of 142 µg/ m³ (below Action and Limit Levels) was measured during the sampling event, which demonstrate no consecutive dust impact at AM1.</p> <p>Due to presence of the influencing factor from the SENT landfill and no potential source from the Project-related activities in the vicinity of AM1 which may lead to the high TSP level was identified, there is no adequate evidence showing that the TSP exceedance at AM1 was deemed to Project-related activities.</p>
Action Taken / Action to be Taken	<p>Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action/Limit Level.</p> <p>The Contractor is also reminded to implement additional dust</p>

	control measures to minimize the dust impact from SENT Landfill to the SENTX boundary.
Remarks	-

Prepared by: Abbey Lau
Designation: Environmental Team
Date: 28 April 2023

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	1 May 2023
Time	8:00 (1 May 2023) – 8:00 (2 May 2023)
Monitoring Location	AM2
Parameter	24-hour Total Suspended Particulates (TSP)
Action / Limit Levels	Action level: >260 µg/ m ³ Limit level: >260 µg/ m ³
Measured Level	356 µg / m ³
Possible reason	<p>From the meteorological data obtained from the SENTX on-site meteorological monitoring station, a predominantly south-easterly to east-southeasterly wind with highest wind speed 4.8 m/s was recorded on 1 and 2 May 2023 during the sampling event.</p> <p>On 1 May 2023, the ET site representative observed tipping activities at Cell 4X and SENT Landfill tie-in area and unpaved areas in the vicinity dust monitoring station AM2. This could be the potential cause for the exceedance. Based on this observation, the TSP exceedance at AM2 was deemed to Project-related activities.</p> <p>In accordance with Table 3.8b of the updated EM&A Manual, repeat measurement was conducted on 7 May 2023 to confirm findings. 24-hour TSP level of 103 µg/ m³ (below Action and Limit Levels) was measured during the sampling event, which demonstrate no consecutive dust impact at AM2.</p>
Action Taken / Action to be Taken	<p>In accordance with Table 3.8b of the updated EM&A Manual, the monitoring frequency at AM2 shall be increased to daily, until no exceedance of the Action/Limit Level. It should be noted that the turnaround time for the laboratory analysis of the dust filter paper is 5 working days and the preliminary results for the monitoring event conducted on 1 to 2 May 2023 were available on 9 May 2023. Repeat measurement was conducted on 7 May 2023 and the TSP monitoring results at AM2 is well below the Action/Limit Level. Hence, the daily TSP monitoring at AM2 shall not be triggered.</p> <p>Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action/Limit Level.</p> <p>ET will continue to closely monitor the dust monitoring results and collect additional data for investigation and further review, if necessary.</p>

Remarks	-
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Prepared by: Abbey Lau

Designation: Environmental Team

Date: 18 May 2023

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	12 May 2023
Time	12:01 – 12:31
Monitoring Location	Landfill Gas Flare 1 (F601)
Parameter	Benzene
Limit Levels	>0.000414 g/s
Measured Level	0.000447 g/s
Possible reason	<p>As confirmed by the Contractor, Landfill Gas Flare 1 (F601) was under normal operating conditions during the sampling event. The landfill gas flare emission monitoring results (SO₂, NO₂, CO, Vinyl chloride, gas combustion temperature, exhaust temperature and exhaust gas velocity) at Landfill Gas Flare 1 (F601) on 12 May 2023 were well within the respective limit levels. It is possible that the slight exceedance of benzene limit level measured on 12 May 2023 could be due to some short-term system instability (e.g. insufficient air, short gas residence time or ineffective mixing of landfill gas and air during the combustion) during the sampling event. Hence, the benzene exceedance at Landfill Gas Flare 1 (F601) on 12 May 2023 is considered Project related.</p> <p>In accordance with Table 3.8b of the updated EM&A Manual, repeat measurement was conducted on 16 June 2023 (it should be noted that the turnaround time of the laboratory analysis of the flue gas sample is 3 weeks and the results were available on 3 July 2023) to confirm findings. The benzene concentration (<0.000330 g/s) measured on 16 June 2023 is well below Limit Level. There is no consecutive exceedance of benzene concentrations in the flue gas emission of Landfill Gas Flare 1 (F601).</p>
Action Taken / Action to be Taken	Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to closely monitoring the operating conditions of the flare to avoid any exceedance of the Limit Levels.
Remarks	-

Prepared by: Abbey Lau
 Designation: Environmental Team
 Date: 4 July 2023

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	6 June 2023
Time	8:00 (6 June 2023) – 8:00 (7 June 2023)
Monitoring Location	AM2
Parameter	24-hour Total Suspended Particulates (TSP)
Action / Limit Levels	Action level: >260 µg/ m ³ Limit level: >260 µg/m ³
Measured Level	340 µg /m ³
Possible reason	<p>From the meteorological data obtained from the SENTX on-site meteorological monitoring station, a predominantly south-southwesterly to southerly wind with highest wind speed 2.6 m/s was recorded on 6 and 7 June 2023 during the sampling event.</p> <p>On 6 June 2023, the ET site representative observed tipping activities at Cell 4X and SENT Landfill tie-in area and traffic emission in the vicinity dust monitoring station AM2. This could be the potential cause for the exceedance. Based on this observation, the TSP exceedance at AM2 was deemed to Project-related activities.</p> <p>In accordance with Table 3.8b of the updated EM&A Manual, repeat measurement was conducted on 12 June and 18 June 2023 to confirm findings. However, the TSP monitoring results at AM2 on 12 June and 18 June 2023 were discarded due to the abnormally wet condition of the filter paper (suspected to be under the influence of sprinkler operation and adverse weather condition). Repeat measurement at AM2 was arranged on 20 June 2023. 24-hour TSP level of 94 µg/m³ (below Action and Limit Levels) was measured during the sampling event, which demonstrate no consecutive dust impact at AM2.</p>
Action Taken / Action to be Taken	<p>In accordance with Table 3.8b of the updated EM&A Manual, the monitoring frequency at AM2 shall be increased to daily, until no exceedance of the Action/Limit Level. It should be noted that the turnaround time for the laboratory analysis of the dust filter paper is 5 working days and the preliminary results for the monitoring event conducted on 6 to 7 June 2023 were available on 14 June 2023. Repeat measurement was conducted on 12 June (results discarded due to the abnormally wet condition of the filter paper), 18 June (results discarded due to the abnormally wet condition of the filter paper) and 20 June 2023, and the TSP monitoring results at AM2 is well below the Action/Limit Level. Hence, the daily TSP monitoring at AM2 shall not be triggered.</p> <p>Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is</p>

	<p>reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action/Limit Level.</p> <p>ET will continue to closely monitor the dust monitoring results and collect additional data for investigation and further review, if necessary.</p>
Remarks	-

Prepared by: Abbey Lau
 Designation: Environmental Team
 Date: 4 July 2023