



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	7 January 2023
Time	8:00 (7 January 2023) – 8:00 (8 January 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	337 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 8.0 m/s was recorded on 7 and 8 January 2023 during the sampling event.</p> <p>On 6 and 9 January 2023 (monitoring event was conducted on Saturday and Sunday), the ET site representative observed construction works of 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 at AM2 on 13 January 2023 to confirm findings. 24-hour TSP level of 47 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 7 to 8 January 2023 were available on 16 January 2023. Repeat measurement was conducted on 13 January 2023 and the TSP monitoring result 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 and Limit Levels.</p>
Remarks	-

Prepared by: Abbey Lau
 Designation: Environmental Team
 Date: 20 February 2023

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	18 January 2023
Time	10:55 – 11:25
Monitoring Location	Thermal Oxidiser
Parameter	Sulphur Dioxide (SO ₂)
Trigger Levels	>0.07 g/s
Measured Level	0.21 g/s
Possible reason	<p>As confirmed by the Contractor, the thermal oxidiser was under normal operating conditions during the sampling event. The thermal oxidiser stack emission monitoring results (NO₂, CO, Benzene, Vinyl chloride, gas combustion temperature, exhaust temperature and exhaust gas velocity) on 18 January 2023 were well within the respective limit levels. It is possible that the slight exceedance of SO₂ limit level measured on 18 January 2023 could be due to some short-term system instability (e.g. insufficient air, short gas residence time or ineffective mixing of gas and air during the combustion) during the sampling event. Hence, the SO₂ exceedance at the thermal oxidiser on 18 January 2023 is considered to be Project related.</p> <p>In accordance with Table 3.8b of the updated EM&A Manual, repeat measurement was conducted on 21 February 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 6 March 2023) to confirm findings. The SO₂ concentration (<0.01 g/s) measured on 21 February 2023 is well below Limit Level. There is no consecutive exceedance of SO₂ concentrations in the flue gas emission of thermal oxidiser.</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 thermal oxidiser to avoid any exceedance of the Limit Levels.
Remarks	-

Prepared by: Abbey Lau
 Designation: Environmental Team
 Date: 7 March 2023

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	31 January 2023
Time	8:00 (31 January 2023) – 8:00 (1 February 2023)
Monitoring Location	AM1, AM2, AM3
Parameter	24-hour Total Suspended Particulates (TSP)
Action / Limit Levels	Action level: >260 µg/ m ³ Limit level: >260 µg/ m ³
Measured Level	AM1: 509 µg /m ³ AM2: 266 µg /m ³ AM3: 267 µg /m ³
Possible reason	<p>From the meteorological data obtained from the SENTX on-site meteorological monitoring station, a predominantly east-northeasterly to easterly wind with highest wind speed 3.6 m/s was recorded on 31 January and 1 February 2023 during the sampling event.</p> <p><u>AM1</u> On 31 January 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 26 January 2023 and 2 February 2023 (before and after the sampling event). 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 6 February 2023 to confirm findings. 24-hour TSP level of 109 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>

	<p><u>AM2</u> On 31 January 2023, the ET site representative observed construction works of 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 6 February 2023 to confirm findings. 24-hour TSP level of 61 µg/m³ (below Action and Limit Levels) was measured during the sampling event, which demonstrate no consecutive dust impact at AM2.</p> <p><u>AM3</u> On 31 January 2023, no works from SENTX which may generate dust emission were conducted in the vicinity of AM3 on the sampling day based on the ET site representative on-site observations and the Contractor’s record of the construction and operation activities carried out on that day. The dust and traffic emission from SENTX haul road at the east of dust monitoring location AM3 could be the potential dust source contributing to the exceedance. The TSP exceedance at AM3 was therefore deemed to Project-related activities. It should be noted that dust emitted from the public fill stockpiling areas and active earthworks from another project site in close vicinity of dust monitoring station AM3 could also contribute to the project.</p> <p>In accordance with Table 3.8b of the updated EM&A Manual, repeat measurement was conducted on 6 February 2023 to confirm findings. 24-hour TSP level of 115 µg/m³ (below Action and Limit Levels) was measured during the sampling event, which demonstrate no consecutive dust impact at AM3.</p>
Action Taken / Action to be Taken	<p>In accordance with Table 3.8b of the updated EM&A Manual, the monitoring frequency at AM1, AM2 and AM3 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 31 January to 1 February 2023 were available on 8 February 2023. Repeat measurement was conducted on 6 February 2023 and the TSP monitoring results at AM1, AM2 and AM3 are well below the Action/Limit Level. Hence, the daily TSP monitoring at AM1, AM2 and AM3 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>In addition, the Contractor was reminded to discuss the dust control measures with CEDD to minimize the dust impact from the other project site to proximity to the SENTX boundary.</p>
Remarks	-

Prepared by: Abbey Lau
 Designation: Environmental Team
 Date: 20 February 2023

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	2 March 2023
Time	8:00 (2 March 2023) – 8:00 (3 March 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	401 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 9.5 m/s was recorded on 2 and 3 March 2023 during the sampling event.</p> <p>On 2 March 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 2 March 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 9 March 2023 to confirm findings. 24-hour TSP level of 165 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 and Limit Levels.</p> <p>In addition, the Contractor was reminded to implement additional</p>

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

Prepared by: Abbey Lau
Designation: Environmental Team
Date: 22 March 2023

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	8 March 2023
Time	8:00 (8 March 2023) – 8:00 (9 March 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	313 µg/ m ³
Possible reason	<p>From the meteorological data obtained from the SENTX on-site meteorological monitoring station, a predominantly southwesterly to south-southwesterly wind with highest wind speed 3.8 m/s was recorded on 8 and 9 March 2023 during the sampling event.</p> <p>On 8 and 9 March 2023 (during the sampling event), the ET site representative observed construction works 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 at AM2 on 14 March 2023 to confirm findings. Exceedance of 24-hour TSP Action/Limit Levels was recorded at AM2 (452 µg/ m³) during the sampling event, which showed 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 8 to 9 March 2023 were available on 17 March 2023. Repeat measurement and the regular TSP monitoring were conducted on 14 March and 20 March 2023, respectively. The TSP monitoring result at AM2 on 14 March 2023 exceeded the Action/Limit Level. However, 24-hour TSP level of 151 µg/ m³ (below Action/Limit Levels) was measured during the regular TSP monitoring event on 20 March 2023. 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</p>

	<p>measures according to the updated EM&A Manual to avoid any exceedance of the Action/Limit Levels.</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: 23 March 2023

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	14 March 2023
Time	8:00 (14 March 2023) – 8:00 (15 March 2023)
Monitoring Location	AM1 and 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	AM1: 306 µg /m ³ AM2: 452 µg /m ³
Possible reason	<p>From the meteorological data obtained from the SENTX on-site meteorological monitoring station, a predominantly east-northeasterly to south-easterly wind with highest wind speed 2.0 m/s was recorded on 14 and 15 March 2023 during the sampling event.</p> <p><u>AM1</u> On 14 March 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 9 and 16 March 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 20 March 2023 to confirm findings. 24-hour TSP level of 171 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> <p><u>AM2</u> On 14 March 2023, the ET site representative observed construction works at Cell 4X and SENT Landfill tie-in area and unpaved areas</p>

	<p>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 20 March 2023 to confirm findings. 24-hour TSP level of 151 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 14 to 15 March 2023 were available on 22 March 2023. Repeat measurement was conducted on 20 March 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. The Contractor is also reminded to implement additional dust control measures to minimize the dust impact from SENT Landfill to the SENTX boundary.</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: 31 March 2023

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	-
---------	---

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

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	13 September 2023
Time	11:49 – 12:19
Monitoring Location	Thermal Oxidiser
Parameter	Sulphur Dioxide (SO ₂)
Limit Levels	>0.07 g/s
Measured Level	0.92 g/s
Possible reason	<p>As confirmed by the Contractor, the thermal oxidiser was under normal operating conditions during the sampling event. The thermal oxidizer stack emission monitoring results (NO₂, CO, Benzene, Vinyl chloride, gas combustion temperature, exhaust temperature and exhaust gas velocity) on 13 September 2023 were well within the respective limit levels. It is possible that the slight exceedance of SO₂ limit level measured on 13 September 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 SO₂ exceedance at the thermal oxidizer on 13 September 2023 is considered to be Project related.</p> <p>In accordance with Table 3.8b of the updated EM&A Manual, repeat measurement was conducted on 16 October 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 2 November 2023) to confirm findings. Exceedance of SO₂ Limit Level was recorded at the thermal oxidiser (0.79 g/s) during the sampling event. The thermal oxidiser showed consecutive exceedance of the stack emission limit (SO₂).</p> <p>It should be noted that although the measured SO₂ level exceeded the limit level of the EM&A programme (which was set based on the stack design parameters), the slight exceedance of SO₂ on 13 September 2023 will not cause adverse air quality impact to the identified ASRs as the anticipated SO₂ concentrations at the identified ASRs will still be well below the respective AQO criteria with reference to the findings of the operational air quality impact assessment of the SENTX Environmental Review Report.</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 thermal oxidiser to avoid any exceedance of the Limit Levels. The Contractor is also reminded to adjust the inlet gas and flow during the routine gas well monitoring.

Remarks	-
---------	---

Prepared by: Abbey Lau
Designation: Environmental Team
Date: 7 November 2023

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	22 September 2023
Time	8:00 (22 September 2023) – 8:00 (23 September 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	357 µg /m ³
Possible reason	<p>From the meteorological data obtained from the SENTX on-site meteorological monitoring station, a predominantly south-southwesterly to southeasterly wind with highest wind speed 4.1m/s was recorded on 22 and 23 September 2023 during the sampling event.</p> <p>On 22 September 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 21 September 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 28 September 2023 to confirm findings. Exceedance of TSP Action and Limit Levels was recorded at AM1 (343 µg/m³) during the sampling event. AM1 showed consecutive exceedance of the TSP level.</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	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.

	The Contractor is also reminded to implement additional dust control measures to minimize the dust impact from SENT Landfill to the SENTX boundary.
Remarks	-

Prepared by: Abbey Lau
 Designation: Environmental Team
 Date: 9 October 2023

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	28 September 2023
Time	8:00 (28 September 2023) – 8:00 (29 September 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	343 µg /m ³
Possible reason	<p>From the meteorological data obtained from the SENTX on-site meteorological monitoring station, a predominantly southeasterly to south-southeasterly wind with highest wind speed 5.2 m/s was recorded on 28 and 29 September 2023 during the sampling event.</p> <p>On 28 September 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 28 September 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 4 October 2023 to confirm findings. 24-hour TSP level of 76 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: 11 October 2023

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	16 October 2023
Time	11:41 – 12:11
Monitoring Location	Thermal Oxidiser
Parameter	Sulphur Dioxide (SO ₂)
Limit Levels	>0.07 g/s
Measured Level	0.79 g/s
Possible reason	<p>As confirmed by the Contractor, the thermal oxidiser was under normal operating conditions during the sampling event. The thermal oxidizer stack emission monitoring results (NO₂, CO, Benzene, Vinyl chloride, gas combustion temperature, exhaust temperature and exhaust gas velocity) on 16 October 2023 were well within the respective limit levels. It is possible that the slight exceedance of SO₂ limit level measured on 16 October 2023 could be due to the low desulfurization efficiency of the desulfurization tanks. Hence, the SO₂ exceedance at the thermal oxidizer on 16 October 2023 is considered to be Project related.</p> <p>In accordance with Table 3.8b of the updated EM&A Manual, repeat measurement was conducted on 16 November 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 29 November 2023) to confirm findings. Exceedance of SO₂ Limit Level was recorded at the thermal oxidiser (0.45 g/s) during the sampling event. The thermal oxidiser showed consecutive exceedance of the stack emission limit (SO₂).</p> <p>It should be noted that although the measured SO₂ level exceeded the limit level of the EM&A programme (which was set based on the stack design parameters), the slight exceedance of SO₂ on 16 October 2023 will not cause adverse air quality impact to the identified ASRs as the anticipated SO₂ concentrations at the identified ASRs will still be well below the respective AQO criteria with reference to the findings of the operational air quality impact assessment of the SENTX Environmental Review Report.</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 closely monitoring the operating conditions of the thermal oxidiser to avoid any exceedance of the Limit Levels.</p> <p>The Contractor has arranged inspection and maintenance at the desulfurization tanks in December 2023 to enhance the desulfurization efficiency.</p>

Remarks	-
---------	---

Prepared by: Abbey Lau
Designation: Environmental Team
Date: 12 December 2023

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	16 November 2023
Time	12:19 – 12:49
Monitoring Location	Thermal Oxidiser
Parameter	Sulphur Dioxide (SO ₂)
Limit Levels	>0.07 g/s
Measured Level	0.45 g/s
Possible reason	<p>As confirmed by the Contractor, the thermal oxidiser was under normal operating conditions during the sampling event. The thermal oxidizer stack emission monitoring results (NO₂, CO, Benzene, Vinyl chloride, gas combustion temperature, exhaust temperature and exhaust gas velocity) on 16 November 2023 were well within the respective limit levels. It is possible that the slight exceedance of SO₂ limit level measured on 16 November 2023 was due to low desulfurization efficiency of the desulfurization tanks. Hence, the SO₂ exceedance at the thermal oxidizer on 16 November 2023 is considered Project-related.</p> <p>In accordance with Table 3.8b of the updated EM&A Manual, repeat measurement was conducted on 15 December 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 January 2024) to confirm findings. The SO₂ concentration (<0.005 g/s) measured on 15 December 2023 is well below Limit Level. There is no consecutive exceedance of SO₂ concentrations in the flue gas emission of the thermal oxidiser.</p> <p>It should be noted that although the measured SO₂ level exceeded the limit level of the EM&A programme (which was set based on the stack design parameters), the slight exceedance of SO₂ on 16 November 2023 will not cause adverse air quality impact to the identified ASRs as the anticipated SO₂ concentrations at the identified ASRs will still be well below the respective AQO criteria with reference to the findings of the operational air quality impact assessment of the SENTX Environmental Review Report.</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 closely monitoring the operating conditions of the thermal oxidiser to avoid any exceedance of the Limit Levels.</p> <p>The Contractor has arranged inspection and maintenance at the desulfurization tanks in December 2023 to enhance the desulfurization efficiency.</p>

Remarks	-
---------	---

Prepared by: Abbey Lau
Designation: Environmental Team
Date: 4 January 2024

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	21 November 2023
Time	8:00 (21 November 2023) – 8:00 (22 November 2023)
Monitoring Location	AM3
Parameter	24-hour Total Suspended Particulates (TSP)
Action / Limit Levels	Action level: >260 µg/ m ³ Limit level: >260 µg/m ³
Measured Level	272 µg /m ³
Possible reason	<p>From the meteorological data obtained from the SENTX on-site meteorological monitoring station, a predominantly northeasterly to southeasterly wind with highest wind speed 1.5 m/s was recorded on 21 and 22 November 2023 during the sampling event.</p> <p>On 21 November 2023, dust emission from the public fill stockpiling areas and active earthworks in vicinity of dust monitoring station AM3 were observed. The sample taken at AM3 on the day might not represent the operation dust emission from SENTX.</p> <p>In addition, no works from SENTX which may lead to potential dust emission was conducted in the vicinity of AM3 on the sampling day based on ET site representative’s on-site observations and construction and operation activities as described by the Contractor. Environmental deficiency was not observed during the weekly site inspection on 23 November 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 27 November 2023 to confirm findings. 24-hour TSP level of 223 µg/m³ (below Action and Limit Levels) was measured during the sampling event, which demonstrate no consecutive dust impact at AM3.</p> <p>Due to presence of the influencing factor from other project site and no potential source from the Project-related activities in the vicinity of AM3 which may lead to the high TSP level was identified, there is no adequate evidence showing that the TSP exceedance at AM3 was deemed to Project-related activities.</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 implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action/Limit Level.

	In addition, the Contractor was reminded to discuss the dust control measures with CEDD, to minimize the dust impact from the other project sites to proximity to the SENTX boundary.
Remarks	-

Prepared by: Abbey Lau
Designation: Environmental Team
Date: 12 December 2023