



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	14 January 2025
Time	8:00 (14 January 2025) – 8:00 (15 January 2025)
Monitoring Location	AM2
Parameter	24-hour Total Suspended Particulates (TSP)
Limit Level	Action level: >260 µg/ m ³ Limit level: >260 µg /m ³
Measured Level	329 µg /m ³
Possible reason	<p>From the meteorological data obtained from the SENTX on-site meteorological monitoring station, a predominantly southeasterly to southerly wind with highest wind speed 1.8 m/s was recorded on 14 and 15 January 2025 during the sampling event.</p> <p>On 14 and 15 January 2025 (during the sampling event), the ET site representative observed construction works (e.g. active stockpiling and excavation works) at Cell 4X area 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 be Project-related activities.</p> <p>In accordance with Table 3.8b of the updated EM&A Manual, repeat measurement was conducted at AM2 on 20 January 2025 to confirm findings. Exceedance of 24-hour TSP Action/Limit Levels was recorded at AM2 (329 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 5-10 working days and the preliminary results for the monitoring event conducted on 14 and 15 January 2025 were available on 23 January 2025. Repeat measurement was conducted on 20 January and 26 January 2025, respectively. The TSP monitoring result at AM2 on 20 January 2024 exceeded the Action/Limit Level. Therefore, daily TSP monitoring was commenced on 4 February 2025 for additional TSP monitoring and terminated on 5 February 2025 after receipt of the lab monitoring results, showing that 63 µg/m³ (below Action/Limit Levels) was measured during the regular TSP monitoring event on 26 January 2025 at AM2.</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 Levels. The Contractor has increased the watering</p>

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	<p>frequency on active works area and applied Posi-shell as cover on exposed area to minimize dust impacts.</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: Solana Leung

Designation: Environmental Team

Date: 6 February 2025

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	20 January 2025
Time	8:00 (20 January 2025) – 8:00 (21 January 2025)
Monitoring Location	AM2
Parameter	24-hour Total Suspended Particulates (TSP)
Limit Level	Action level: $>260 \mu\text{g}/\text{m}^3$ Limit level: $>260 \mu\text{g}/\text{m}^3$
Measured Level	$329 \mu\text{g}/\text{m}^3$
Possible reason	<p>From the meteorological data obtained from the SENTX on-site meteorological monitoring station, a predominantly easterly to southeasterly wind with highest wind speed 1.4 m/s was recorded on 20 and 21 January 2025 during the sampling event.</p> <p>On 20 and 21 January 2025 (during the sampling event), the ET site representative observed construction works (e.g. active stockpiling and excavation works) at Cell 4X area 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 26 January 2025 to confirm findings. 24-hour TSP level of $63 \mu\text{g}/\text{m}^3$ (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 5-10 working days and the preliminary results for the monitoring event conducted on 20 to 21 January 2025 were available on 5 February 2025. Repeat measurement was conducted on 26 January 2025 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 Levels. The Contractor has increased the watering frequency on active works area and applied Posi-shell as cover on exposed area to minimize dust impacts.</p>

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	ET will continue to closely monitor the dust monitoring results and collect additional data for investigation and further review, if necessary.
Remarks	-

Prepared by: Solana Leung

Designation: Environmental Team

Date: 6 February 2025

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	10 February 2025
Time	10:43 – 11:13
Monitoring Location	Thermal Oxidiser
Parameter	Nitrogen Dioxide (NO ₂)
Limit Level	1.58 g/s
Measured Level	1.59 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 (CO, SO₂, Benzene, Vinyl chloride, gas combustion temperature, exhaust temperature and exhaust gas velocity) on 10 February 2025 were well within the respective limit levels. It is possible that the slight exceedances of NO₂ limit level measured on 10 February 2025 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). Hence, the NO₂ exceedance at the thermal oxidizer on 10 February 2025 is considered Project related.</p> <p>In accordance with Table 3.8b of the updated EM&A Manual, repeat measurement was conducted on 6 March 2025 (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 20 March 2025) to confirm findings. The NO₂ concentration (1.23 g/s) measured on 6 March 2025 is well below Limit Level. There is no consecutive exceedance of NO₂ concentrations in the flue gas emission of the thermal oxidiser.</p> <p>It should be noted that although the measured NO₂ level exceeded the limit level of the EM&A programme (which was set based on the stack design parameters), the exceedance of NO₂ on 10 February 2025 will not cause adverse air quality impact to the identified ASRs as the anticipated NO₂ 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 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>ET will continue to closely monitor the air quality monitoring results and collect additional data for investigation and further review, if necessary.</p>

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Prepared by: Solana Leung

Designation: Environmental Team

Date: 17 April 2025

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	11 February 2025
Time	10:22– 10:52
Monitoring Location	Landfill Gas Flare 1 (F601)
Parameter	Benzene
Limit Level	0.000414 g/s
Measured Level	0.002065 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 (NO₂, CO, SO₂, Vinyl chloride, gas combustion temperature, exhaust temperature and exhaust gas velocity) at Landfill Gas Flare 1 (F601) on 11 February 2025 were well within the respective limit levels. It is possible that the slight exceedances of Benzene limit level measured on 11 February 2025 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). Hence, the Benzene exceedance at Landfill Gas Flare 1 (F601) on 11 February 2025 is considered Project related.</p> <p>In accordance with Table 3.8b of the updated EM&A Manual, repeat measurement was conducted on 7 March 2025 (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 20 March 2025) to confirm findings. The Benzene concentration (<0.000142 g/s) measured on 7 March 2025 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> <p>It should be noted that although the measured Benzene level exceeded the limit level of the EM&A programme (which was set based on the stack design parameters), the exceedance of Benzene on 11 February 2025 will not cause adverse air quality impact to the identified ASRs as the anticipated Benzene concentrations at the identified ASRs will be below the Limit Level set 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 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>ET will continue to closely monitor the air quality monitoring results and collect additional data for investigation and further review, if necessary.</p>

Investigation Report of Environmental Quality Limit Exceedance

Remarks	-
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Prepared by: Solana Leung

Designation: Environmental Team

Date: 17 April 2025

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	19 February 2025
Time	8:00 (19 February 2025) – 8:00 (20 February 2025)
Monitoring Location	AM1
Parameter	24-hour Total Suspended Particulates (TSP)
Limit Level	Action level: $>260 \mu\text{g}/\text{m}^3$ Limit level: $>260 \mu\text{g}/\text{m}^3$
Measured Level	$331 \mu\text{g}/\text{m}^3$
Possible reason	<p>From the meteorological data obtained from the SENTX on-site meteorological monitoring station, a predominantly east-southeasterly to southeasterly wind with highest wind speed 1.3 m/s was recorded on 19 and 20 February 2025 during the sampling event.</p> <p>On 19 February 2025, dust and traffic emission from the SENT landfill in vicinity and located at the east of dust monitoring station 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 ET's representative on-site observations and construction and operation activities as described by the Contractor. Environmental deficiency was not observed during the weekly site inspection on 20 February 2025. 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 25 February 2025 to confirm findings. 24-hour TSP level of $172 \mu\text{g}/\text{m}^3$ (below Action and Limit Levels) was measured during the sampling event, which demonstrate no consecutive dust impact at AM1.</p> <p>Due to the presence of the influencing factors i.e. SENT landfill and no potential source from the Project-related activities in the vicinity of AM1 which may lead to the high TSP level identified, there is not adequate evidence to show that the TSP exceedance at AM1 was due 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 Levels.

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	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: Solana Leung

Designation: Environmental Team

Date: 10 March 2025