

Annex F4

# Investigation Reports of Environmental Quality Limit Exceedance

## Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	3 June 2021
Time	14:23 and 14:35 (Duplicate)
Monitoring Location	DP4T
Parameter	Surface Water (pH)
Action / Limit Levels	Action level: >8.39 Limit level: >8.40
Measured Level	DP4T: 8.84 & 8.82 DP4T (Duplicate): 8.82 & 8.82
Possible reason	<p>From the on-site rainfall record of May and June 2021, heavy rainfall events were recorded on 31 May and 1 June 2021 before the sampling event. Red and amber rainstorm warning signal was also issued by the Hong Kong Observatory on 1 June 2021. On 1 June 2021, muddy surface water discharge and overflow from other project sites to the sediment trap leading to DP4T was observed.</p> <p>No works which may lead to potential pH increase (e.g. concreting works) was conducted in the vicinity of surface water channel leading to DP4T on the sampling day based on on-site observations and construction activities described by the Contractor. Site surface runoff collected at DP4T channel was treated by the Wetsep prior to discharge. Wetsep near DP4T was functioning properly during the sampling event.</p> <p>Environmental deficiency was not observed during the weekly site inspection on 3 June 2021 morning before the surface water monitoring. The Contractor has implemented the surface water control and mitigation measures recommended in the updated EM&amp;A Manual.</p> <p>During the sampling event, no raining was recorded and no other sources (e.g. Clearwater Bay Country Park, other project sites) was identified in the vicinity of surface water channel leading to DP4T which might cause the pH exceedance at DP4T. There is no adequate evidence showing that the muddy surface water discharge and overflow from other project sites to the sediment trap leading to DP4T on 1 June 2021 could have contributed to the level of pH during the sampling event. The pH exceedance at DP4T was therefore deemed to Project-related activities.</p> <p>It is noted that the Water Pollution Control Ordinance (WPCO) water discharge licence was obtained by the Contractor for the operation of the Wetsep near DP4T and the allowable discharge limit for pH is 6 to 9. The treated water from the Wetsep did not exceed the WPCO discharge limit and cause any adverse water</p>

	quality impact.
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&amp;A Manual to avoid any exceedance of the Action and Limit Levels.</p> <p>In addition, the Contractor was reminded to review the efficiency of the Wetsep near sediment trap and monitor the Wetsep operation regularly to ensure it is functioning properly at all times.</p>
Remarks	-

Prepared by: Abbey Lau  
Designation: Environmental Team  
Date: 12 July 2021

## Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	3 June 2021
Time	14:23 and 14:35 (Duplicate)
Monitoring Location	DP4T
Parameter	Surface Water (Suspended Solids (SS))
Action / Limit Levels	Action level: >11.7 mg/L Limit level: >12.7 mg/L
Measured Level	DP4T: 32.3 mg/L DP4T (Duplicate): 32.0 mg/L
Possible reason	<p>From the on-site rainfall record of May and June 2021, heavy rainfall events were recorded on 31 May and 1 June 2021 before the sampling event. Red and amber rainstorm warning signal was also issued by the Hong Kong Observatory on 1 June 2021. On 1 June 2021, muddy surface water discharge and overflow from other project sites to the sediment trap leading to DP4T was observed.</p> <p>No works which may lead to potential SS increase (e.g. active stockpiling and excavation works) was conducted in the vicinity of surface water channel leading to DP4T on the sampling day based on on-site observations and construction activities described by the Contractor. Site surface runoff collected at DP4T channel was treated by the Wetsep prior to discharge.</p> <p>Environmental deficiency was not observed during the weekly site inspection on 3 June 2021 morning. The Contractor has implemented the surface water control and mitigation measures recommended in the updated EM&amp;A Manual.</p> <p>During the sampling event, no raining was recorded and no other sources (e.g. Clearwater Bay Country Park, other project sites) was identified in the vicinity of surface water channel leading to DP4T which might cause the SS exceedance at DP4T. There is no adequate evidence showing that the muddy surface water discharge and overflow from other project sites to the sediment trap leading to DP4T on 1 June 2021 could have contributed to the level of SS during the sampling event. The SS exceedance at DP4T was therefore 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&amp;A Manual to avoid any exceedance of the Action and Limit Level.</p> <p>In addition, the Contractor was reminded to review the efficiency</p>

	of the Wetsep near sediment trap and monitor the Wetsep operation regularly to ensure it is functioning properly at all times.
Remarks	-

Prepared by: Abbey Lau  
Designation: Environmental Team  
Date: 12 July 2021

## Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	10 June 2020
Time	14:29 and 14:37 (Duplicate)
Monitoring Location	DP4T
Parameter	Surface Water (pH)
Action / Limit Levels	DP4T: Action level: >8.39 Limit level: >8.40
Measured Level	DP4T: 8.61 & 8.61 DP4T (Duplicate): 8.58 & 8.56
Possible reason	<p>From the on-site rainfall record of June 2021, rainfall event was recorded on 9 June 2021 before the sampling event. No works which may lead to potential pH increase (e.g. concreting works) was conducted in the vicinity of surface water channel leading to DP4T on the sampling day based on on-site observations and construction activities described by the Contractor. During the sampling event, no raining was recorded and no other sources (e.g. Clearwater Bay Country Park, other project sites) was identified in the vicinity of surface water channel leading to DP4T which might cause the pH exceedance at DP4T.</p> <p>Surface runoff collected at DP4T channel was treated by the Wetsep prior to discharge. Yet during the sampling event, it was observed that the Wetsep near sediment trap was not functioning properly with reference to the on-site checking of the treated water at the outlet of the processing chamber of the Wetsep. The pH of the treated water collected at the outlet of the Wetsep (i.e. 8.81) exceeded the Action and Limit Level.</p> <p>Based on the above, the pH exceedance at DP4T was deemed to Project-related activities. However, it is noted that the Water Pollution Control Ordinance (WPCO) water discharge licence was obtained by the Contractor for the operation of the Wetsep near DP4T and the allowable discharge limit for pH is 6 to 9. The treated water from the Wetsep did not exceed the WPCO discharge limit and cause any adverse water quality impact.</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&amp;A Manual to avoid any exceedance of the Action and Limit Level.</p> <p>In addition, the Contractor shall review the efficiency of the Wetsep near sediment trap and monitor the Wetsep operation regularly to ensure it is functioning properly at all times.</p>

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Prepared by: Abbey Lau

Designation: Environmental Team

Date: 8 July 2021

## Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	17 June 2020
Time	14:46 and 14:45 (Duplicate)
Monitoring Location	DP4T
Parameter	Surface Water (pH)
Action / Limit Levels	DP4T: Action level: >8.39 Limit level: >8.40
Measured Level	DP4T: 8.48 & 8.50 DP4T (Duplicate): 8.50 & 8.47
Possible reason	<p>No works which may lead to potential pH increase (e.g. concreting works) was conducted in the vicinity of surface water channel leading to DP4T on the sampling day based on on-site observations and construction activities described by the Contractor. During the sampling event, no raining was recorded and no other sources (e.g. Clearwater Bay Country Park, other project sites) was identified in the vicinity of surface water channel leading to DP4T which might cause the pH exceedance at DP4T.</p> <p>Surface runoff collected at DP4T channel was treated by the Wetsep prior to discharge. Yet during the sampling event, it was observed that the Wetsep near sediment trap was not functioning properly with reference to the on-site checking of the treated water at the outlet of the processing chamber of the Wetsep. The pH of the treated water collected at the outlet of the Wetsep (i.e. 8.55) exceeded the Action and Limit Level.</p> <p>Based on the above, the pH exceedance at DP4T was deemed to Project-related activities. However, it is noted that the Water Pollution Control Ordinance (WPCO) water discharge licence was obtained by the Contractor for the operation of the Wetsep near DP4T and the allowable discharge limit for pH is 6 to 9. The treated water from the Wetsep did not exceed the WPCO discharge limit and cause any adverse water quality impact.</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&amp;A Manual to avoid any exceedance of the Action and Limit Level.</p> <p>In addition, the Contractor shall review the efficiency of the Wetsep near sediment trap and monitor the Wetsep operation regularly to ensure it is functioning properly at all times.</p>



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## Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	24 June 2021
Time	15:14 and 15:24 (Duplicate)
Monitoring Location	DP6
Parameter	Surface Water (pH)
Action / Limit Levels	Action level: >8.39 Limit level: >8.40
Measured Level	DP6: 9.17 & 9.17 DP6 (Duplicate): 9.17 & 9.15
Possible reason	<p>From the on-site rainfall record of June 2021, heavy rainfall events were recorded on 21 to 24 June 2021 before the sampling event. Amber rainstorm warning signals were also issued by the Hong Kong Observatory on 22, 23 and 24 June 2021.</p> <p>No works which may lead to potential pH increase (e.g. concreting works) was conducted in the vicinity of surface water channel leading to DP6 on the sampling day based on on-site observations and construction activities described by the Contractor.</p> <p>Environmental deficiency was observed during the weekly site inspection on 24 June 2021 morning. Surface water collected at DP6 channel was not treated by the Wetsep prior to discharge. The untreated surface water discharged at DP6 could be the potential source of pH contributing to the exceedance. Based on the above, the pH exceedance at DP6 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&amp;A Manual to avoid any exceedance of the Action and Limit Levels.</p> <p>In addition, the Contractor shall ensure that all surface water at DP6 is treated before discharge and the Wetsep is functioning properly at all times.</p>
Remarks	-

Prepared by: Abbey Lau  
 Designation: Environmental Team  
 Date: 9 July 2021

## Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	24 June 2021
Time	15:14 and 15:24 (Duplicate)
Monitoring Location	DP6
Parameter	Surface Water (Suspended Solids (SS))
Action / Limit Levels	Action level: >11.7 mg/L Limit level: >12.7 mg/L
Measured Level	DP6: 83.6 mg/L DP6 (Duplicate): 79.8 mg/L
Possible reason	<p>From the on-site rainfall record of June 2021, heavy rainfall events were recorded on 21 to 24 June 2021 before the sampling event. Amber rainstorm warning signals were also issued by the Hong Kong Observatory on 22, 23 and 24 June 2021.</p> <p>No works which may lead to potential SS increase (e.g. active stockpiling and excavation works) was conducted in the vicinity of surface water channel leading to DP6 on the sampling day based on on-site observations and construction activities described by the Contractor.</p> <p>Environmental deficiency was observed during the weekly site inspection on 24 June 2021 morning. Surface water collected at DP6 was not treated by the Wetsep prior to discharge.</p> <p>Based on the above, the SS exceedance at DP6 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&amp;A Manual to avoid any exceedance of the Action and Limit Levels.</p> <p>In addition, the Contractor shall ensure that all surface water at DP6 is treated before discharge and the Wetsep is functioning properly at all times.</p>
Remarks	-

Prepared by: Abbey Lau  
 Designation: Environmental Team  
 Date: 9 July 2021