

**Sewage Treatment Facilities in Hong Kong and Their Effluent Quality Data****(A) Major Sewage Treatment Works Managed by DSD**

Name	Maximum Discharge Limit in the WPCO Licence (x1000m <sup>3</sup> /day)	Annual Average of Major Water Quality Parameters in Monitoring Data of Facilities (Year 2013, 2014, 2015)		
		Biochemical Oxygen Demand (mg/L)	Suspended Solids (mg/L)	Total Nitrogen (mg/L)
<b>Chemically Enhanced Primary Treatment</b>				
Stonecutters Island Sewage Treatment Works	4 000	2013: 75 2014: 68 2015: 69 (Discharge Upper Limit: 170)	2013 : 48 2014 : 46 2015 : 44 (Discharge Upper Limit: 114)	Not Applicable (Note1)
Pillar Point Sewage Treatment Works (Note 2)	525	2013: Not Applicable (Note2) 2014: 80 2015: 89 (Discharge Upper Limit: 360)	2013 : Not Applicable (Note2) 2014 : 42 2015 : 48 (Discharge Upper Limit: 240)	Not Applicable (Note1)
Siu Ho Wan Sewage Treatment Works	360	2013: 63 2014: 79 2015: 57 (Discharge Upper Limit: 200)	2013 : 50 2014 : 55 2015 : 65 (Discharge Upper Limit: 200)	Not Applicable (Note1)
Sham Tseng Sewage Treatment Works	50.5	2013 : 78 2014 : 53 2015 : 64 (Discharge Upper Limit: 220)	2013 : 43 2014 : 43 2015 : 51 (Discharge Upper Limit: 180)	Not Applicable (Note1)
<b>Biological Treatment</b>				
Sha Tin Sewage Treatment Works	1 020	2013: <6 2014: <5 2015: <5 (Discharge Upper Limit: 40)	2013 : <9 2014 : <9 2015 : <11 (Discharge Upper Limit: 60)	2013 : <9 2014 : <9 2015 : <7 (Discharge Upper Limit: 35)

Name	Maximum Discharge Limit in the WPCO Licence (x1000m <sup>3</sup> /day)	Annual Average of Major Water Quality Parameters in Monitoring Data of Facilities (Year 2013, 2014, 2015)		
		Biochemical Oxygen Demand (mg/L)	Suspended Solids (mg/L)	Total Nitrogen (mg/L)
<b>Tai Po Sewage Treatment Works</b>	250	2013: <6 2014: <5 2015: <6 (Discharge Upper Limit: 40)	2013 : <10 2014 : <8 2015 : <9 (Discharge Upper Limit: 60)	2013 : <9 2014 : <9 2015 : <9 (Discharge Upper Limit: 35)
<b>Shek Wu Hui Sewage Treatment Works</b>	240	2013: <6 2014: <6 2015: <6 (Discharge Upper Limit: 40)	2013 : <7 2014 : <9 2015 : <8 (Discharge Upper Limit: 60)	2013 : <10 2014 : <10 2015 : <9 (Discharge Upper Limit: 28) (Note3)
<b>Yuen Long Sewage Treatment Works</b>	210	2013: <6 2014: <6 2015: <6 (Discharge Upper Limit: 40)	2013 : <7 2014 : <9 2015 : <9 (Discharge Upper Limit: 60)	Not Applicable (Note1)
<b>Stanley Sewage Treatment Works</b>	34.7	2013: <4 2014: <3 2015: <3 (Discharge Upper Limit: 40)	2013 : <3 2014 : <4 2015 : <4 (Discharge Upper Limit: 60)	2013 : <7 2014 : <6 2015 : <6 (Discharge Upper Limit: 26) (Note3)
<b>Sai Kung Sewage Treatment Works</b>	24	2013: <5 2014: <6 2015: <6 (Discharge Upper Limit: 40)	2013 : <6 2014 : <6 2015 : <6 (Discharge Upper Limit: 60)	2013 : <5 2014 : <5 2015 : <5 (Discharge Upper Limit: 24)

(1) Discharge limits and the requirements of the water quality monitoring are formulated based on the design of the sewage treatment facilities and their environmental impact to the relevant waters.

(2) The Pillar Point Sewage Treatment Works was upgraded by ATAL – Degrémont – China State Joint Venture under a Design-Build-Operate form of contract in Mid-2014. Water quality data illustrated are for the period after the completion of the upgrading works.

(3) The figure stated is the sum of the amounts of ammonia nitrogen, nitrate nitrogen and nitrite nitrogen in the water sample(s).

**(B) Leachate Treatment Plants at Landfills Managed by EPD**

Name of Landfill	Contractor (SITA and its associated company are marked with “ * ”)	Maximum Discharge Limit in the WPCO Licence (m <sup>3</sup> /day)	Annual Average of Major Water Quality Parameters in Monitoring Data of Facilities (Year 2013, 2014, 2015)		
			Biochemical Oxygen Demand (mg/L)	Suspended Solids (mg/L)	Total Nitrogen (mg/L)
<b>Restored Landfills</b>					
<b>Pillar Point Valley Landfill</b>	*SITA Waste Services Limited	2 600	2013: <2 2014: 3 2015: 4 (Discharge Upper Limit: 800)	2013: 4 2014: 3 2015: 4 (Discharge Upper Limit: 800)	2013: 60 2014: 61 2015: 64 (Discharge Upper Limit: 100)
<b>Tseung Kwan O Stage I Landfill Tseung Kwan O Stage II/III Landfill (Note 1)</b>	*SITA Waste Services Limited	1 450	2013: 11 2014: 10 2015: 10 (Discharge Upper Limit: 800)	2013: 9 2014: 11 2015: 4 (Discharge Upper Limit: 800)	2013: 69 2014: 55 2015: 36 (Discharge Upper Limit: 200)
<b>Siu Lang Shui Landfill, Ma Tso Lung Landfill, Ngau Tam Mei Landfill and Gin Drinkers Bay Landfill (Note 1)</b>	*SITA Waste Services Limited	480	2013: 20 2014: 15 2015: 12 (Discharge Upper Limit: 800)	2013: 9 2014: 5 2015: 8 (Discharge Upper Limit: 800)	2013: 81 2014: 60 2015: 61 (Discharge Upper Limit: 200)
<b>Sai Tso Wan Landfill, Ngau Chi Wan Landfill, Jordan Valley Landfill, Ma Yau Tong West Landfill, Ma Yau Tong Central Landfill (Note 2)</b>	Hong Kong Landfill Restoration Group Limited	<u>Jordan Valley Landfill</u> 350  <u>Ma Yau Tong Central Landfill</u> 350	<u>Jordan Valley Landfill</u> 2013: 23 2014: 20 2015: 17 (Discharge Upper Limit: 800) <u>Ma Yau Tong Central Landfill</u> 2013: 1 2014: 1 2015: 2 (Discharge Upper Limit: 800)	<u>Jordan Valley Landfill</u> 2013: 21 2014: 14 2015: 18 (Discharge Upper Limit: 800) <u>Ma Yau Tong Central Landfill</u> Not Applicable (Note 3) (Discharge Upper Limit: 800)	<u>Jordan Valley Landfill</u> 2013: 62 2014: 78 2015: 64 (Discharge Upper Limit: 200) <u>Ma Yau Tong Central Landfill</u> 2013: 109 2014: 119 2015: 101 (Discharge Upper Limit: 200)

Name of Landfill	Contractor (SITA and its associated company are marked with “ * ”)	Maximum Discharge Limit in the WPCO Licence (m <sup>3</sup> /day)	Annual Average of Major Water Quality Parameters in Monitoring Data of Facilities (Year 2013, 2014, 2015)		
			Biochemical Oxygen Demand (mg/L)	Suspended Solids (mg/L)	Total Nitrogen (mg/L)
<b>Shuen Wan Landfill</b>	Hong Kong Landfill Restoration Group Limited	Not Applicable (Note 4)	Not Applicable (Note 4)	Not Applicable (Note 4)	Not Applicable (Note 4)
<b>Operating Landfills</b>					
<b>West New Territories Landfill</b>	*SITA Waste Services Limited	2 000	2013: 19 2014: 13 2015: 6 (Discharge Upper Limit: 800)	2013: 55 2014: 28 2015: 14 (Discharge Upper Limit: 800)	2013: 132 2014: 107 2015: 128 (Discharge Upper Limit: 200)
<b>North East New Territories Landfill</b>	*Far East Landfill Technologies Ltd.	1 600	2013: 10 2014: 24 2015: 14 (Discharge Upper Limit: 400)	2013: 37 2014: 82 2015: 73 (Discharge Upper Limit: 400)	2013: 160 2014: 121 2015: 86 (Discharge Upper Limit: 200)
<b>South East New Territories Landfill</b>	Green Valley Landfill Ltd.	2 400	2013: 17 2014: 32 2015: 27 (Discharge Upper Limit: 800)	2013: 84 2014: 101 2015: 71 (Discharge Upper Limit: 800)	2013: 133 2014: 133 2015: 122 (Discharge Upper Limit: 200)

- (1) Leachate from these landfills are collectively treated at one leachate treatment plant for the respective contract.
- (2) Leachate from these landfills are collectively treated at the leachate treatment plant at the Jordan Valley Landfill in dry season, while the leachate treatment plant at Ma Yau Tong Central Landfill will only be operated in wet season when there is higher leachate generation.
- (3) Discharge limits and the requirements of the water quality monitoring are formulated based on the design of the sewage treatment facilities and their environmental impact to the relevant waters.
- (4) Leachate from Shuen Wan Landfill is collected and treated directly at the Tai Po Sewage Treatment Works.

**( C ) Sewage Treatment Facilities of Power Stations**

Name of Power Stations	Operator	Maximum Discharge Limit in the WPCO Licence (m <sup>3</sup> /day)	Annual Average of Major Water Quality Parameters in Monitoring Data of Facilities (Year 2013, 2014, 2015)		
			Biochemical Oxygen Demand (mg/L)	Suspended Solids (mg/L)	Total Nitrogen (mg/L) (Note 1)
<b>Castle Peak Power Station</b>	Castle Peak Power Company Limited	2 000	2013 : <5 2014 : <5 2015 : <5 (Discharge Upper Limit: 20)	2013 : 8 2014 : 8 2015 : 5 (Discharge Upper Limit: 30)	Not Applicable
<b>Black Point Power Station</b>	Castle Peak Power Company Limited	420	2013 : 5 2014 : <5 2015 : <5 (Discharge Upper Limit: 20)	Not Applicable	Not Applicable
<b>Lamma Power Station</b>	HK Electric	664	2013: Note 2 2014: <2 2015: <2 (Discharge Upper Limit: 20)	2013: 16 2014: 12 2015: 9 (Discharge Upper Limit: 30)	Not Applicable
<b>Penny's Bay Power Station (Standby facility)</b>	Castle Peak Power Company Limited	4 181	Note 3 (Discharge Upper Limit: 20)	Note 3 (Discharge Upper Limit: 20)	Not Applicable

- (1) Discharge limits and the requirements of the water quality monitoring are formulated based on the design of the sewage treatment facilities and their environmental impact to the relevant waters.
- (2) The range in 2013 is between <2 mg/L and 11mg/L. As the accuracy of the measurement is only up to 2mg/L, the average concentration cannot be calculated. Overall speaking, the individual and average concentrations are well below the discharge limit of 20mg/L.
- (3) Penny's Bay Power Station is a standby facility and there is no discharge record from 2013 to 2015.