For information
on 12 June 2008

Legislative Council

**House Committee Subcommittee on the
Sewage Services (Trade Effluent Surcharge) (Amendment) Regulation 2008**

**Follow-up actions arising from the discussions
at the meeting on 2 and 3 June 2008**

Purpose

At the meetings of the Subcommittee on the Sewage Services (Trade Effluent Surcharge) (Amendment) Regulation 2008 held on 2 and 3 June 2008, Members requested the Administration to provide further information. This paper seeks to provide the information requested.

Basis of calculation of the TES rates

2. The Sewage Services Charging scheme was introduced based on the "polluter-pays" principle. Under the scheme, the operating cost of the provision of sewage services is being apportioned to different users of the services based on pollution load with a view to fully recovering the operating cost.

3. Being part of the charging scheme, a Trade Effluent Surcharge (TES) scheme was established to recover the extra operating cost in treating trade effluents which are more polluting than domestic sewage. The appropriate portion of the operating cost allotted to the trades under the TES scheme is determined according to the total pollution load of the TES trades in excess of the domestic sewage pollution level. The total pollution load of the TES trades is the aggregate of the product of the volume of water consumption adjusted by applicable discharge factors and the respective generic chemical oxygen demand (COD) value of each and every TES trade, which measures the strength of effluent, exceeding the strength of domestic sewage.

4. Pollution load of a trade accountable under the TES scheme is derived by multiplying the volume of water consumption adjusted by discharge factor if applicable of all operators in the same trade and the average COD value of the trade after deducting the generic COD value of domestic sewage. For the TES purposes, the average COD values of the trade are capped at 2,000 grammes per cubic metre in the calculation. According to the present mechanism, the average COD value of a trade is hence adopted as the generic value in calculating the total pollution load of the TES trade (as described in para. 3) above. This is a professionally sound and established practice and methodology and in accordance with the "polluters-pay" principle. In this context, any statistical figures other than the average (e.g. median COD value) will not

bear any relevance to the determination of the pollution load. A new mechanism will have to be designed and therefore comparison of the unit cost derived from the average COD value with the median COD value is not meaningful.

5.   Having determined the cost to be borne by the TES trades as a whole, and the contribution for which each TES trade should be responsible, a TES rate would then be assigned to each trade under the TES scheme as long as the generic COD value exceeds the average strength of domestic sewage.

6.   The revised generic COD values and TES rates as stipulated in the Sewage Services (Trade Effluent Surcharge) (Amendment) Regulation 2008 are derived according to the procedures mentioned above.

Variation of the mechanism

7.   As set out in para. 4 above, it is not possible to use statistical values other than the average for computing the total pollution load. And as we noted on a number of occasions, changing the way operating cost of the sewage services being apportioned to the TES trades would necessitate a fundamental change to the system and would create other problems from a professional and technical standpoint. The change must be applicable to all trades under the TES scheme in order to maintain fairness and equity.

The use of median COD values

8.   As we have noted at previous meetings, the use of median COD values is inappropriate for the type of exercise under discussion. The TES and associated system have been built on the basis of pollution load in accordance with "polluters-pay" principle. The median COD value is not an appropriate indicator of the strength of effluent for the purpose of the calculation of the TES and has no direct relationship to the pollution load of the trade, thus not tallying with the "polluters-pay" principle. It does not give consistent and reliable calculation of TES.

9.   At the request of Members and solely for discussion purposes, we have done some rough calculations on a set of hypothetical TES rates for the trades. The result of the calculation is shown at **Annex A**. For most trades, the median COD value is lower than the average value. We also observe that a number of trades should be removed from the TES scheme as the generic value, based on the median value, would be lower than the value for domestic sewage. For the three trades effluent samples representative of sewage discharged by the typical production processes were not successfully collected during the effluent survey, namely the "Spinning Cotton", "Paints, vanishes and lacquers" and "Pulp, paper and paperboard" trades, we continued to apply the prevailing specified generic value to be the median COD values for these trades for the purpose of calculating the TES rates.

10.　　　　We must emphasise that this is not an appropriate way to calculate the TES and from a professional and technical standpoint, there are many conceptual and practical problems with such calculations and a lot of inconsistencies created.　We do not recommend the use of median values for calculating the TES.

Streamlining of the reassessment procedure

11.　　　　We will collaborate with all stakeholders and trades through different channels to discuss measures to streamline the reassessment procedure, including extending the validity period of a reassessed COD value from two to three years, with a view to making the procedure more user-friendly and reducing reassessment cost to the trades.

Number of applications for reassessment of TES rates

12.　　　　Members requested the Administration to provide the number of applications for reassessment of TES rates since the extension of validity of reassessed TES rates became effective, and the number of applications in the same period in the previous two years for comparison purpose.　The requested information are as follows –

Period	Number of applications
July 2005 to January 2006	329
July 2006 to January 2007	302
July 2007 to January 2008	74

13.　　　　Members may wish to note that after extension of the validity of a reassessed TES rate became operational, the Drainage Services Department has automatically extended by one year all cases of which the reassessed COD value was still valid on 1 July 2007.　Therefore, the number of applications for reassessment of the TES rates since 1 July 2007 is not indicative of the effectiveness of the new measure in encouraging trades to apply for reassessment.

Charging effect

14.　　　　Members inquired whether an amendment to the Regulation to the effect that the costs of an application to vary the TES rates to be borne by the Government would have any charging effect.　Our initial view is that such amendment will carry a charging effect.

Environmental Protection Department
Drainage Services Department
6 June 2008

The following rough calculation using the median COD values obtained from the trade effluent survey was made, solely for discussion purposes, at the request of the Members. We must emphasise that this is not an appropriate way to calculate the TES. We do not recommend the use of median values for calculating the TES.

	Trade	Chemical Oxygen Demand (grammes per cubic metre)		TES rates[1] （dollar per cubic metre）	
		Average	Median	Proposed[2]	Calculated by using the median value
1.	Yarn sizing	8,200	8,200~~2,000~~	4.51	11.93~~4~~
2.	Washing new garments, excluding laundries	566	280	0.41	N/A[4]
3.	Bleaching and dyeing of garments	351	240	N/A	N/A
4.	Bleaching and dyeing of knitted fabric	665	636	0.41	1.08
5.	Bleaching and dyeing of woven fabric	1,053	930	1.20	3.42
6.	Textile stencilling and printing	387	410	N/A	N/A
7.	Knit outerwear	566	280	0.41	N/A[4]
8.	Wearing apparel other than knit outerwear	566	280	0.41	N/A[4]
9.	Spinning cotton	570[3]~~N/A~~	570[3]~~268~~	0.41	0.56~~N/A~~
10.	Laundries	397	268	N/A	N/A
11.	Soap and cleaning preparations, perfumes, cosmetics	4,425	2,743~~2,000~~	4.51	11.93~~4~~
12.	Medicines	4,726	373	4.51	N/A[4]
13.	Paints, varnishes and lacquers	1,000[3]~~N/A~~	1,000[3]	1.38	3.98
14.	Basic industrial chemicals	677	495	0.76	N/A[4]
15.	Tanneries and leather finishing	807	103	0.76	N/A[4]
16.	Pulp, paper and paperboard	1,870[3]~~N/A~~	1,870[3]	4.88	10.90~~4~~

	Trade	Chemical Oxygen Demand (grammes per cubic metre)		TES rates[1] （dollar per cubic metre）	
		Average	Median	Proposed[2]	Calculated by using the median value
17.	Soft drinks and carbonated waters industries	826	650	0.47	1.19
18.	Breweries and manufacture of malt liquor	6,401	6,401~~2,000~~	4.51	11.93~~4~~
19.	Distilling, rectifying and blending spirits	60,250	60,250~~2,000~~	4.51	11.93~~4~~
20.	Cocoa, chocolate and sugar confectionery	2,572	1,600	4.51	8.75~~6~~
21.	Vermicelli, noodles, and similar farinaceous products	2,794	1,230	4.51	5.81
22.	Bakery products	2,614	1,380	3.92	7.00
23.	Grain mill products	1,521	1,075	2.77	4.57~~8~~
24.	Vegetable oil, peanut oil, peppermint oil and aniseed oil	1,320	1,320	2.48	6.52~~3~~
25.	Canning, preserving and processing of fish and crustaceans	1,141	765	1.78	2.11
26.	Canning and preserving fruit and vegetables	2,614	1,543	3.41	8.30
27.	Dairy products	15,322	790	4.51	2.31
28.	Slaughtering, preparing and preserving meat	1,129	796	1.74	2.35~~6~~
29.	Soy and other sauces	3,795	922	4.51	3.36
30.	Restaurants	1,630	964	3.05	3.69

1   As noted in paragraph 7 of the LegCo Brief, the maximum COD value for each trade is capped at 2,000 grammes per cubic metre for the purpose of calculating the TES rates

2   Proposed rates for implementation on or after 1 August 2009

3   As effluent samples representative of sewage discharged by the typical production processes of the trade were not successfully collected during the effluent survey, we continued to apply the prevailing specified generic value to be the median COD value

4   These trades should continue to pay the TES according to their pollution load derived from the average COD values.   The generic value of these trades, by using the median values, would be lower than the average value of the domestic sewage, they should hence be removed from the TES scheme.   It means it is not possible to recover from them the relevant operating cost for treating their effluents. The relevant operating cost may have to be shared by other trades remaining in the TES scheme