

**Waste Disposal (Designated Waste Disposal Facility) (Amendment)  
Regulation 2013 and Waste Disposal (Refuse Transfer Station)  
(Amendment) Regulation 2013**

This note provides the supplementary information requested by the Subcommittee on Waste Disposal (Designated Waste Disposal Facility) (Amendment) Regulation 2013 and Waste Disposal (Refuse Transfer Station) (Amendment) Regulation 2013 at its second meeting on 23 December 2013.

Enforcement against leachate dripping from RCVs

- (a) *regarding the 45 summonses issued in the past four months against dripping of leachate from RCVs in the vicinity of landfills under the joint enforcement actions taken jointly by the Police, Food and Environmental Hygiene Department ("FEHD"), and Environmental Protection Department, to provide information on the respective number of summonses in which –*
- (i) *the RCVs concerned are not installed with suitable or adequate equipment to avoid leachate dripping; and*
  - (ii) *the RCVs concerned are installed with the equipment to avoid leachate dripping but the RCV drivers/users did not use the equipment properly (e.g. failing to close the tailgate cover and maintain the waste water sump tank);*

Out of the 45 summonses issued by FEHD during the joint enforcement actions in the past four months from August to November 2013, five summonses were issued against leachate dripping from RCVs and the rest were related to dripping of waste water from dump trucks and lorries. FEHD's enforcement team did not examine the details of the RCV installation at the time of enforcement and hence was not certain whether the vehicles were installed with suitable or adequate equipment to avoid leachate dripping.

- (b) *to consider taking enforcement actions against nuisance caused by RCVs, such as leachate dripping or waste spattering, outside the vicinity of landfills along the major routes of RCVs in the territory;*

Apart from joint enforcement actions mentioned above in the vicinity of landfills, FEHD also issued 13, 13 and 36 summonses respectively

in 2011, 2012 and 2013 (up to November 2013) against leachate dripping or waste spattering from RCVs over the territory. We will continue to closely monitor the situation and step up enforcement action as necessary.

#### Equipment of RCVs

- (c) *to provide information on the estimated maximum volume of waste water that can be produced by waste compaction in a typical RCV of FEHD (or its contractor) fully carrying municipal solid waste;*
- (d) *to assess whether the suggested minimum size of waste water sump tank to be specified for RCVs with different permitted gross vehicle weight in the draft "Guidelines on the Design and Construction of Metal Tailgate Cover and Waste Water Sump Tank installed on Refuse Collection Vehicle" (Annex A of LC Paper No. CB(1)581/13-14(04)) can accommodate the respective maximum volume of waste water that can be produced by waste compaction in the RCVs;*

During loading and compaction of waste into the body of the RCV, most of the water content of the waste is normally retained in the waste. Only a small amount of waste water is squeezed out in the process and is collected into the waste water sump tank. The amount of waste water generated highly depends on the type of waste collected and is difficult to quantify. As such, there is no hard and fast rule in determining the minimum size of the waste water sump tank of RCVs.

The capacity of the waste water sump tank as specified in the tender document for procurement of government RCVs is based on FEHD's operation needs and Electrical and Mechanical Services Department (EMSD)'s past design experience. Depending on the payload (from 4 to 11 tonnes) of the vehicle, the size of the sump tank ranges from 100 to 150 litres. These sizes have so far been found to be adequate.

Indeed, the same size range has been specified as the minimum size required in the draft "Guidelines on the Design and Construction of Metal Tailgate Cover and Waste Water Sump Tank installed on Refuse Collection Vehicle" (Annex A of LC Paper No. CB(1)581/13-14(04)). This size range has also been used in the pilot retrofitting subsidy scheme which was drawn up in consultation with the trade and will be used in the forthcoming full subsidy scheme. We also observe that the operators would, based on their own experience and the vehicle condition, install a tank larger than the requirements, that is, the

operators would maximize the sump tank volume under the existing space limitation of their RCVs.

- (e) *to consider requiring RCVs to install/retrofit with devices to monitor the leachate level in their waste water sump tanks to avoid leachate overflow and dripping;*

There is already an in-built mechanism whereby the operator will be warned of high waste water level in the sump tank. The waste water collected in the hopper of the tailgate unit will be drained into the sump tank through a series of holes or gaps at the bottom of the hopper. Waste water will start to appear at the bottom of the hopper when the waste water volume in the sump tank reaches about 80% of its capacity. Such mechanism should enable the RCV operators to monitor the leachate level in the waste water sump tanks to avoid leachate overflow and dripping. Nevertheless, we will consider the need and feasibility of installing/retrofitting additional warning device as suggested by Members.

- (f) *to provide information on the standards, if any, for the waste compaction devices of RCVs, such as the maximum proportion by which the waste can be compacted and reduced in size;*

For government RCVs, the required compaction ratio is specified as between 3:1 and 5:1 (that is, between 3 to 5 volumes of waste are compacted into 1 volume of waste) in the tender document for procurement of RCVs. The actual design compaction ratio largely falls between 3:1 and 4:1.

#### Charges of refuse transfer stations ("RTSs")

- (g) *to explain the rationale for setting the fee level of four RTSs (i.e. the Island East Transfer Station, Island West Transfer Station, West Kowloon Transfer Station and Shatin Transfer Station) at \$30 per tonne as proposed, including whether the fee level has taken into account the potential impact on the private waste collection trade and the contractors of FEHD of the additional operating cost from longer haulage after re-routing their waste collection services as a result of the "Waste Diversion Plan" for the South East New Territories ("SENT") Landfill;*

Upon the SENT Landfill being designated for construction waste only and no longer a disposal outlet for Municipal Solid Waste (MSW) , most of the affected private waste collectors would likely deliver MSW to West Kowloon Transfer Station (WKTS) and Shatin Transfer Station (STTS) as these two RTSs are located within reasonable distance from the waste sources. Some other private collectors may also use Island East Transfer Station (IETS) and Island West Transfer Station (IWTS) if they operate on the Hong Kong side or serve South Kowloon. In fact, we fully encourage maximum utilization of the existing RTS network so as to reduce the traffic burden and environmental issues caused by long haulage of RCVs.

To optimize the utilization of the whole RTS network and to encourage the private waste collectors to use the RTS in close proximity to where they operate, we therefore propose to align the fee level of WKTS, IETS, IWTS and STTS to \$30 per tonne, which is the current fee level for WKTS and the lowest in the RTS system. This means there will be a fee reduction at IETS and IWTS, as their current fee level is \$40 per tonne. Based on the current utilization of WKTS by private waste collectors, we believe that the fee level of \$30 per tonne is commercially viable to the trade and will create the necessary incentives for optimizing the utilization of these four RTSs. On the other hand, RTS fees are not applicable to FEHD's contractors. With the exception of the need to re-routing some of them away from WKTS and STTS due the waste diversion plan, the alignment of fee levels at the four RTSs would have no material impact on them.

- (h) *to explain the operation of the fee mechanism for disposal of waste at RTSs, including whether disposal of leachate from the waste water sump tank of RCVs at RTSs will be subject to disposal charges, and if so, how to address the concerns about illegal discharge of leachate from RCVs to minimize disposal charges;*

Currently, private waste collectors using the RTSs are charged based on the weight of waste delivered for disposal. Each vehicle is weighed at the in-weighbridge before and out-weighbridge after waste disposal. The charged load is the difference between the in-weight and the out-weight readings. Therefore, if a RCV disposes of its leachate at a RTS, the weight of the leachate disposed of will also be counted in the charged load and hence subject to disposal charges. However, noting that the weight of the leachate discharged is relatively small when compared to the weight of the waste being disposed of, the increase in the overall disposal charge is therefore quite insignificant. For

example, for a typical RCV carrying 5 tonnes of waste, the disposal charge of its full 300 litre wastewater tank of leachate at WKTS is less than \$10. We are not aware that any RCV drivers have deliberately committed illegal discharge of leachate in order to minimize the disposal charge.

- (i) ***to consider requiring RCVs to discharge their leachate before they are weighed upon entry to RTSs;***

We do not intend to require RCVs to discharge their leachate before they are weighed upon entry to RTSs. As explained in (h) above, the weight of the leachate to be discharged is relatively small and the increase of the disposal charge due to the leachate is quite insignificant. Furthermore, the disposal of leachate must be carried out at the tipping hall of a RTS, where a proper leachate collection system is installed. To impose such a new requirement that all RCVs must discharge their leachate at the tipping hall prior to pass the in-weighbridge will inevitably increase the traffic flow inside the RTS and may hinder its operation. Hence we consider that the existing practice that a driver could decide whether or not to empty the wastewater tank simultaneously while unloading MSW should continue.

- (j) ***to provide information on the facilities where RCVs may discharge leachate properly outside RTSs en route to the landfills if the RCVs do not discharge the leachate under carriage when going through an RTS; and to consider increasing the provision of such facilities;***

At present, RCVs may discharge their leachate at RTSs and landfills, where appropriate waste water treatment facilities are equipped for handling this highly concentrated waste water.

#### Enhancing the facility of refuse collection points ("RCPs")

- (k) ***to provide information on the number of public RCPs which are equipped with waste compaction devices, and how the leachate produced from waste compaction is treated at or discharged from these RCPs; and***

Some 40 FEHD's RCPs are installed with mobile waste compactors and the installation of these devices depends on the operational need and design of the individual RCPs. Furthermore, FEHD is responsible

for collection of domestic refuse, the water content of which is low when compared to that of trade waste (e.g. food waste from food premises) and hence there is not much leachate generated. The domestic refuse collected at FEHD's RCPs and other RCPs of public housing estates and private residential buildings will be delivered to RTSs or landfills by FEHD's and its contractors' RCVs which are equipped with proper waste water sump tanks to avoid dripping of leachate.

- (l) *to consider the feasibility of providing waste compaction and leachate treatment/disposal facilities at RCPs as an option for RCVs to discharge leachate properly en route to RTSs/landfills.*

Most of FEHD's off street RCPs are situated in residential areas and the design and capacity of which were not built to cater for other purposes. Allowing RCVs to discharge leachate in FEHD's RCPs would probably increase the road traffic in the vicinity of the RCPs, apart from hindering the normal operation of the RCPs, giving rise to other hygiene problem. Furthermore, FEHD's RCPs do not have waste water treatment facilities to handle leachate from RCVs and the discharge of leachate there would not be able to comply with the discharge standards allowed.

Amendments to the Waste Disposal (Designated Waste Disposal Facility) (Amendment) Regulation 2013 ("DWDF Amendment Regulation")

2. The Administration is requested to provide the proposed amendments to the DWDF Amendment Regulation as set out in its written response (LC Paper No. CB(1)581/13-14(02)) to the letter dated 12 December 2013 from the Legal Service Division of the Legislative Council Secretariat.

Please see Annex attached.

Environmental Protection Department  
30 December 2013

## **Interpretation and General Clauses Ordinance**

### **Resolution of the Legislative Council**

#### **Waste Disposal (Designated Waste Disposal Facility) (Amendment) Regulation 2013**

Resolution made and passed by the Legislative Council under section 34(2) of the Interpretation and General Clauses Ordinance (Cap. 1) on [                      ].

**Resolved** that the Waste Disposal (Designated Waste Disposal Facility) (Amendment) Regulation 2013, published in the Gazette as Legal Notice No. 188 of 2013 and laid on the table of the Legislative Council on 4 December 2013, be amended as set out in the Schedule.

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## Schedule

### Amendments to Waste Disposal (Designated Waste Disposal Facility) (Amendment) Regulation 2013

1. **Section 3 amended (section 3A amended (facilities that accept construction waste))**
  - (1) Section 3, Chinese text—  
**Repeal**  
““第 3””  
**Substitute**  
““第 3 或””.
  - (2) Section 3, Chinese text—  
**Repeal**  
““第 1(b)、3””  
**Substitute**  
““第 1(b)、3 或””.
2. **Section 5 amended (section 4 amended (powers of Director))**
  - (1) Section 5(4), Chinese text, before ““第(2)””—  
**Add**  
“所有”.
  - (2) Section 5(5), Chinese text, before ““第(2)””—  
**Add**  
“所有”.

Clerk to the Legislative Council

2014