



環境保護署

Environmental Protection Department

# A small change makes great improvement. Work together to build a better environment

Please use a fully-enclosed refuse collection vehicle



Government



Waste disposal trade



Property owners, property management companies and relevant parties



## Background



Every day, hundreds of Refuse Collection Vehicles# (RCVs) collect waste from domestic, commercial, industrial and institutional establishments all over Hong Kong. According to the Government's current record, there are at present around 140 government RCVs operated by the Food and Environmental Hygiene Department (FEHD) and 310 private RCVs in the territory.

## Potential Problems caused by RCVs

Improper operation and maintenance of RCVs may create odour, overflowing and dripping leachate problems, which not only pollute the environment and affect environmental hygiene, but also pose a nuisance for nearby residents and the community.

### Open-type refuse collection vehicle



▲ Exposed refuse giving off odour and causing public nuisance



▲ Overflowing and dripping leachate dirtying the streets and affecting environmental hygiene



## Replacement Programme for Government RCVs

The FEHD has taken the lead in replacing government RCVs with fully enclosed ones since 2002, i.e. equipped with a metal tailgate cover, a waste water tank installed underneath the vehicle body and a sump tank located between the rear axle and hopper unit.

Currently, all RCVs of FEHD are either fitted with a packer plate to cover the rear refuse hopper or are of an enclosed type design. About 130 FEHD RCVs are of an enclosed type design, and it is expected that the remaining ones will be replaced with those of an enclosed type design in or before 2013.

### Fully-enclosed refuse collection vehicle



Metal tailgate cover



Sump tank

Waste water tank



▲ RCV before retrofitting



▲ RCV after retrofitting



## Trial Scheme of Retrofitting Private Refuse Collection Vehicles



However, many private RCVs do not have either a metal tailgate cover or a waste water tank/sump tank with adequate capacity. To explore the feasibility of retrofitting open-type private RCVs with a metal tailgate cover and waste water tank/sump tank, a trial scheme of retrofitting private RCVs was jointly carried out by the Environmental Protection Department (EPD) and the waste disposal trade in 2011. A total of 8 private RCVs were selected for modification which included retrofitting a metal tailgate cover and enlarging/installing a sump tank.

The results of the trial scheme showed that the retrofitting works were technically feasible and relatively simple. The average costs of retrofitting a metal tailgate cover and enlarging a sump tank were about \$13,000 and \$5000 respectively and only a few days were taken to complete the retrofitting. It was also clear that the modified private RCVs appear to be cleaner and cause less nuisance to the public and the environment.



▲ Enlarged/retrofitted sump tank



▲ Retrofitted metal tailgate cover



## FEHD's Refuse Collection Service Contracts

It is stipulated in FEHD's refuse collection service contracts that the contractors' RCVs must be installed with sump tanks at the bottom of the vehicles and that the contractors have to take all necessary preventive measures against dripping of leachate during refuse loading, unloading and transportation. Furthermore, all RCVs of contractors must be fitted with tailgate cover to prevent the emission of odour. To further enhance the environmental hygiene, contractors are required to use fully-enclosed RCVs as provided in the refuse collection service contracts commencing after May 2011. It is expected that all RCVs of its contractors will be replaced by those of fully-enclosed type design by 2015.

# RCVs with a rear compactor for compaction of collected refuse



## Replacement/Retrofitting Programme for Private RCVs

To upgrade the standard of the existing open-type private RCVs, in terms of appearance and hygiene, thereby raising their image and avoiding nuisance to the public and the environment, the trade is encouraged to retrofit as soon as possible the existing open-type RCVs. If the installation of additional waste water tank is not feasible, then the trade should consider enlarging the existing waste water tank/sump tank. Furthermore, from now on the trade should consider purchasing fully-enclosed RCVs when procuring new RCVs for their business operation.



## Review of Current Private Refuse Collection Service Contracts

For RCVs serving the private sector, the Government will encourage property owners, property management companies and the relevant parties to follow the FEHD's approach by requiring their outsourced waste collection contractors to provide fully-enclosed RCVs in their current or future refuse collection service contracts in order to have higher standard RCVs entering their premises to collect waste.



## Proper Management • Code of Practice

Even when RCVs are well equipped, they should also be managed and operated properly. Therefore, a Code of Practice on the Operation of Refuse Collection Vehicles has been prepared by the EPD together with the trade and relevant government departments. The Code of Practice aims to provide general guidelines in respect of environmental hygiene and safety for the waste disposal sector and the practitioners to observe, with a view to avoiding nuisance caused by RCVs to the environment and community during their operation. The Code of Practice also raises environmental hygiene and safety awareness among the employees in operating RCVs, thus enhancing the overall performance of the waste disposal trade.



## The Way Forward



As generators of waste, we all have a responsibility to protect our environment and ensure that the waste disposed of is properly collected for treatment or disposal.



The waste disposal trade should follow the Government's approach to upgrade their fleet of RCVs by replacing open-type RCVs with fully-enclosed ones or retrofitting them. The clients (e.g. property owners, property management companies) of waste collection contractors should demand their outsourced contractors to deploy fully-enclosed RCVs to collect waste from their premises.



The Government will continue to work closely with the trade in following the Code of Practice to upgrade themselves and enhance their overall performance. On the other hand, relevant government departments would also undertake enforcement actions against the trade for non-compliance with the relevant legislations to safeguard public hygiene and safety. In the longer term, the need to regulate RCVs to ensure that they are totally enclosed with metal tailgate cover and equipped with waste water tank/sump tank may be considered.

Joint efforts of the Government, the trade and the public will make Hong Kong a greener and cleaner world city.

## Environmental Protection Department

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