

**For discussion on  
26 July 2013**

**Legislative Council Panel on Environmental Affairs  
Special Meeting**

**Matters on Hong Kong's Municipal Solid Waste Recovery Rate  
and Handling of Imported Waste**

This paper aims to brief Members on the (1) import and export control of waste and recyclables in Hong Kong; (2) Operation Green Fence (“OGF”), an enforcement project to tighten the inspection of imported waste and recyclables in the Mainland; (3) current control on waste disposal at landfills; (4) import and export trade declaration figures on recyclables; and (5) estimation of the municipal solid waste (“MSW”) recovery rate.

**(1) Import and Export Control of Waste and Recyclables in Hong Kong**

2. In line with international practices adopted by other places, our current laws strictly prohibit the disposal of imported waste locally. The import and export of non-hazardous recyclables for recycling purpose is allowed under the Waste Disposal Ordinance. Imported recyclables are commodities with commercial value. The trading of such recyclables is very active in the international market since they can be recycled or reused as production raw materials, thus conducive to the circular economy. (Please refer to **Annex 1** on the quantities of recyclables imported and exported in the past five years).

3. However, the import of waste, including foreign domestic waste (commonly known as “foreign rubbish”), for disposal in Hong Kong is illegal. The Environmental Protection Department (“EPD”) and the Customs and Excise Department (“C&ED”) are vigilant in taking enforcement actions against such activities.

**(2) Tightened Inspection of Imported Waste and Recyclables in the Mainland**

4. The Mainland enforcement authorities have launched the OGF since February 2013 as a measure to tighten the inspection of waste and recyclables at all

ports across the country. In April this year, the EPD and C&ED met with the representatives of the China Customs and the Ministry of Environmental Protection to understand the objectives and requirements of the OGF. It is understood that the Mainland authorities have, pursuant to the existing national legislation regarding the control over the import and export of waste, stepped up the interception of unlawfully imported waste which may pollute the environment. To strictly implement the relevant national standards, they have also tightened the inspection of imported recyclables and reusable materials. All recyclables meeting the national standards will not be affected and can be imported into the Mainland as usual. In parallel, the Mainland authorities have strengthened the control on imported recyclables, including the verification of customs declaration documents. Any non-compliant imported shipments, such as consolidating recyclables from different countries of origin (commonly known as “consolidated container loads”) or mixing different types of recyclables (commonly known as “mixed container loads”), will be subject to stringent inspection and management requirements of the Mainland enforcement authorities. Such containers will be returned and handled in accordance with the laws.

5. There were cases in which container loads of recyclables (particularly plastic materials) generated locally in Hong Kong or originated from overseas and re-exported via Hong Kong had been returned by the Mainland for not having been properly processed, which resulted in non-compliance with the national standards.

6. In the light of tightened control over imported recyclables by the Mainland enforcement authorities, the EPD and C&ED have strengthened liaison with the Mainland counterparts to track returned containers from the Mainland. The EPD, assisted by the C&ED, will follow up with the responsible persons of the rejected container loads upon their arrival and conduct inspections to ascertain the type of recyclables being carried. The whereabouts of returned containers will be monitored closely until they are shipped out of Hong Kong.

7. As at 22 July this year, the EPD and C&ED have received a total of 189 returned container loads to Hong Kong as reported by the Mainland authorities. These container loads carry recyclable materials including metal scrap, plastic scrap and waste paper. With the assistance of the C&ED, the EPD is following up on the handling arrangements for these materials. Of the 189 returned container loads, 102 loads have been shipped out of Hong Kong and the remaining 87 loads have been arranged for departure. Details are tabulated below:

Type of recyclables	No. of container loads	No. of container loads shipped out of Hong Kong	No. of container loads to be shipped out of Hong Kong
Recyclable metals	54	46	8
Recyclable plastics	89	10	79
Recyclable paper	41	41	0
Waste batteries	5	5	0
<b>Total</b>	<b>189</b>	<b>102</b>	<b>87</b>

8. The EPD and C&ED have also strengthened spot checks on recyclables imported into Hong Kong to ascertain the content of the containers concerned and their export arrangements for ensuring that no imported recyclables will be disposed of locally.

**(3) Control on Waste Disposal at Landfills**

9. All along the EPD has been stringently monitoring waste delivered to landfills and refuse transfer stations (“RTSs”). All vehicles entering a waste disposal facility must stop at the weighbridge for weighing and inspection. The EPD officers and contractors will require the drivers to open hood covers of their vehicles to facilitate inspection by site staff and recording through the closed circuit television system of information such as the type of waste, weight of the load and the vehicle registration number. According to the past records, the EPD has not found large loads of waste plastics or materials with recyclable value being transported to landfills or RTSs for disposal.

10. Since the launch of the OGF in the Mainland, the EPD has strengthened its monitoring efforts at landfills and RTSs. Apart from regular monitoring measures mentioned above, the EPD officers and contractors will pay special attention to vehicles carrying waste plastics to landfills and RTSs. In case any such vehicle is suspected to be carrying imported waste, the driver will be required to provide his personal particulars for follow-up actions. In addition, to further prevent improper disposal of imported waste or plastic materials with recyclable value, specific areas have been designated at landfills for temporary stockpiling of suspected waste plastics for inspection by EPD officers. EPD’s monitoring actions subsequent to the implementation of the OGF indicate that all waste plastics disposed of at landfills are locally generated, highly contaminated and of no recyclable value.

11. According to EPD's records, the quantity of MSW disposed of at landfills every day was steady in the past ten years. In 2012, about 9,300 tonnes of MSW were disposed of daily at landfills. The overall waste plastics content among MSW disposed of was about 20%, a steady percentage over the past ten years (MSW quantity and waste plastics content are shown at Annex 2). The EPD has not found any disposal of large amount of imported plastic recyclables among MSW disposed of at our landfills.

12. Since June this year, the EPD has launched a trip ticket system on the "Disposal Arrangement of Locally Generated Waste Plastics" to prevent illegal disposal of imported plastics in Hong Kong and to avoid disposal of locally generated plastic recyclables by recyclers at landfills or RTSs. EPD officers will first carry out inspections at the waste recycling sites and check with the persons-in-charge about their operation. The first step is to ascertain the origin of the plastic recyclables to confirm if there are any imported materials involved. In addition to on-site inspections, EPD officers will also obtain relevant documents and information from recyclers to find out and ascertain the origin of the recyclables.

13. If it is confirmed that the materials are locally generated plastic recyclables, the EPD will assist recyclers by assessing the condition of such recyclables and identifying recycling outlets as far as possible. It is our objective is to maximize recycling and avoid disposal.

14. As at 22 July this year, the EPD received a total of five applications for the above-mentioned arrangement from local recyclers. The EPD has proposed the delivery of the locally generated plastic materials to EcoPark for recycling in respect of the first application and is processing the remaining applications. The EPD will maintain contact with the recycling industry to closely monitor the situation and take further necessary measures against attempts to dispose of imported waste and recyclables in Hong Kong. As understood by the EPD, local recyclers have been scaling down the quantity of recyclables imported into Hong Kong, some recyclers have introduced waste sorting processes, whilst some others are upgrading waste treatment capabilities (such as shredding machines and washing machines) as well as exploring other export outlets for the recyclables.

#### **(4) Import and Export Trade Declaration Figures on Recyclables**

15. Some recent media reports have referred the anomalies found in the import and export statistics of recyclables in Hong Kong as an indication of possible disposal

of large amount of imported waste plastics at the landfills. As explained in paragraphs 9 to 11 above, such speculation does not tally with the actual quantity of waste received at landfills and is therefore not substantiated.

16. Hong Kong is a free port which imposes no tariffs. There are relatively simple requirements in terms of customs declaration and the information so collected is mainly used for statistical purposes. As regards the difference between import and export declaration figures of recyclables in Hong Kong, there is a possibility that imported materials are re-exported under another classification category. We should therefore focus on the total imports and exports of recyclables instead. In the past five years, the total exports of recyclables exceeded the total imports of recyclables every year.

17. The EPD and C&ED will continue to enhance co-operation and information sharing with the Mainland enforcement authorities, work collaboratively to strengthen supervision, support proper and legitimate import and export trading activities of recyclable resources, combat stringently against illegal trans-boundary movements of waste and malpractices, and make concerted efforts to promote circular economy and green development in Hong Kong and the Mainland.

**(5) Estimation of MSW Recovery Rate**

18. The EPD has all along adopted a methodology commonly used internationally in estimating the MSW recovery rate in Hong Kong. The formula is as follows:

$$\frac{\text{MSW recovered}}{(\text{MSW recovered} + \text{MSW disposed})}$$

19. The total quantity of MSW recovered for recycling in each year is derived from the sum of (i) the annual total of recyclables exported from Hong Kong to other places for recycling as compiled by the Census and Statistics Department (“C&SD”) (based on export declarations submitted by exporters to the C&ED) and (ii) the annual total of MSW recycled locally (estimated from the statistical surveys on local recyclers conducted by the EPD). The total quantity of MSW disposed of is the annual total of MSW disposed of at waste disposal sites (primarily landfills).

20. Generally speaking, the data used for estimating the MSW recovery rate is mainly sourced from the figures of waste treatment facilities and recyclers, export

statistics of recyclables, results of interview surveys, etc. Different countries/regions will adopt appropriate data for estimation in accordance with the actual circumstances such as data availability and reliability.

21. Based mainly on domestic exports figures collated by the C&SD, the EPD estimates the quantity of recyclables recovered. Domestic exports refer to (i) goods manufactured in Hong Kong; or (ii) products of a manufacturing process in Hong Kong which has changed permanently the shape, nature, form or use of their basic materials.

22. Taking note of the substantial fluctuation in domestic exports figures on plastic recyclables in recent years, the EPD is concerned about the situation. In late 2012, the EPD commissioned an independent consultant to conduct a detailed study to ascertain the production, recovery and disposal of waste plastics in Hong Kong. The report of the study is expected to be completed by the end of this year.

23. The target set in the Hong Kong Blueprint for Sustainable Use of Resources 2013-2022 is to reduce Hong Kong's MSW disposal rate on a per capita basis by 20%, from 1.27 kg per day to 1 kg or below by 2017, and further down to 0.8 kg or below by 2022, representing a reduction of 40% over 2011. The MSW disposal rate on a per capita basis, derived from the actual quantity of waste received by landfills and our population size, reflects not only our actual performance in reducing waste generation and enhancing waste recovery and recycling but also our efforts in conserving landfill space.

### **Conclusion**

24. The EPD has strengthened waste inspection at landfills since March this year and has maintained close co-operation with the C&ED and Mainland enforcement authorities. The EPD will continue to monitor the situation and take further measures as necessary to prevent disposal of imported recyclables in our city.

Environment Bureau / Environmental Protection Department  
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**Annex 1****Quantities of Recyclables Exported (by type) (2008 - 2012) (in thousand tonnes)**

<b>Type of recyclables</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Ferrous metals	1,247	1,183	1,012	1,136	1,098
Non-ferrous metals	232	206	251	190	197
Paper	1,101	1,036	1,200	1,287	1,171
Plastics	4,178	4,127	4,223	3,453	3,237
Others	217	170	179	180	143
Total	6,975	6,722	6,865	6,246	5,846

**Quantities of Recyclables Imported (by type) (2008 - 2012) (in thousand tonnes)**

<b>Type of recyclables</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Ferrous metals	513	402	353	319	319
Non-ferrous metals	260	245	210	194	167
Paper	52	122	187	215	103
Plastics	4,489	4,696	4,799	3,962	3,200
Others	184	137	171	146	137
Total	5,498	5,602	5,720	4,836	3,926

