**Waste Disposal (Amendment) (No.2) Bill 2003**

**Follow-up actions arising from the discussion at the meeting on 14 April 2004**

| (1) To provide a comparison between Hong Kong and overseas countries on the following aspects – | | |
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| | Hong Kong | Other cities/countries |
| (a) charging mechanism for landfills and the fee levels; | The original proposed charging mechanism is as follows –<br><br>(a) to establish a direct payment system requiring major waste producers (i.e. any principal contractor who undertakes a construction work valued $1 million or above) to open accounts and pay waste disposal charges to the Government direct. These major waste producers are mainly construction contractors who generate about 70 - 80% of our construction waste;<br>(b) for the remaining 20-30% of construction waste mostly arising from renovation works, we have proposed to levy the charges through waste haulers who deliver the waste to the waste facilities.<br><br>We are now discussing with the trade an alternative payment arrangement of removing on-site payment | In many overseas economies, landfill charges are collected through a "gate fee" system, rather than through direct charging of the waste producers. Under the "gate fee" system, charges are imposed on the waste haulers or individuals who arrive at the landfill gate with the waste. They would have to pay either in cash or through account billing.<br><br>The landfill charging arrangements for construction waste in other economies are outlined below:<br><br><u>Shenzhen, the Mainland</u><br>Private waste collectors are required to pay the charge in cash at the landfill gate with charges calculated on a per-tonne basis ($33 per tonne for landfills).<br><br><u>Singapore</u><br>Licensed waste disposal contractors are required to pay the charge at the landfill gate with charges calculated on a per-tonne basis ($376 per tonne). The contractors will charge the waste producers the |

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| | and requiring all charges to be paid through billing accounts.<br><br>The proposed charges at landfills, sorting facilities and public fill reception facilities are $125 per tonne, around $100 per tonne and $27 per tonne respectively. The proposed charges represent full recovery of the capital and recurrent costs of the facilities. | landfill charge plus a haulage fee per trip.<br><br><u>Taipei</u><br>Private waste collectors are charged a gate fee calculated on a per-tonne basis ($544 per tonne) for delivering waste to landfills.<br><br><u>USA</u><br>Private waste collectors are charged a gate fee calculated on a per-tonne basis (the rate varies between states, ranging from $182 to $330 per tonne, with an average of about $270 per tonne) for delivering waste to waste facilities.<br><br><u>Vancouver, Canada</u><br>Landfill users can choose to separate recyclable materials from a waste load and pay a lower rate of $247 per tonne for waste disposal, or pay a higher rate of $495 per tonne to have the entire load landfilled.<br><br><u>London, UK</u><br>Private waste collectors are charged a gate fee calculated on a per-tonne basis ($264 per tonne) for delivering waste to landfills. On top of the landfill charge, there is a landfill tax of $161 per tonne.<br><br><u>Denmark</u><br>Private waste collectors are charged a gate fee calculated on a per-tonne basis ($320 per tonne) for delivering waste to landfills. In addition, they have to pay a landfill tax of |

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| | | $331 per tonne.<br><br><u>France</u><br>Private waste collectors are charged a gate fee calculated on a per-tonne basis ($416 per tonne) for delivering waste to landfills. On top of the landfill charge, there is a landfill tax of $100 per tonne.<br><br>A chart comparing the landfill charges of different cities/ countries is at Annex I. |
| (b) selective demolition; | The adoption of "selective demolition" can facilitate recycling of construction materials for beneficial uses as it involves demolition and removal of waste of the same category one at a time to avoid mixing of recyclable materials with non-recyclable materials and inert with non-inert materials.<br><br>For public works projects, it is a mandatory requirement under the waste management plan to carry out selective demolition for demolition works under contracts invited on or after 1 July 2003.<br><br>For private projects, the Buildings Department has provided guidelines for planning the sequences of demolition to allow for separation and sorting of building materials.<br><br>The implementation of the | Different measures are adopted by other cities/ countries to encourage selective demolition.<br><br><u>Melbourne, Australia</u><br>There is a tipping charge for the disposal of construction materials at landfills, which provides incentive to the contractors to implement selective demolition so as to reduce the tipping charge.<br><br><u>Berlin and Lower Saxony, Germany</u><br>All polluters who generate construction materials are responsible for finding ways to deal with the materials generated.<br><br>By law, all these polluters have to register with the Environmental Protection Agency the types and amount of materials to be generated and the methods of disposal. These materials can either be disposed of at a landfill site at a very high |

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| | construction waste disposal charging scheme will provide financial incentive for developers/contractors to step up their efforts in preventing and recovering construction materials through proper planning and implementation of appropriate measures, including carrying out selective demolition for demolition works. | cost, or processed by a licensed recycler at a charge based on commercial prudent principle. The aim of the arrangement is to reduce waste and encourage selective demolition/ on-site sorting.<br><br>The polluters have to report to the authority on the waste disposal by producing a disposal certification from the recycler or landfill operator.<br><br><u>Denmark</u><br>To encourage the use of recycled aggregate materials and adoption of selective demolition, a tax is imposed for using natural aggregate materials. |
| (c) punitive measures for indiscriminate demolition; and | There are no punitive measures for indiscriminate demolition.<br><br>The differential charges under the proposed construction waste disposal charging scheme (with landfill charge the highest and public fill charge the lowest) will provide economic disincentive for developers/contractors to demolish buildings indiscriminately as they would have to pay more for the disposal of mixed demolition materials. | <u>USA</u><br>Contractors are required to pay disposal charge for dumping at landfills. The dumping fee has been on the rise. Also, more and more local governments are banning disposal of certain types of construction materials at landfills.<br><br>In California, contractors are even required to pay a deposit to the local government based on the type and size of the project before demolition works can commence. They can get a refund with the proof of diverting at least half of the construction materials away from landfills. |

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| | | Germany<br>Landfill disposal is charged. As an alternative outlet for the construction materials, contractors can pay a recycling plant for processing their materials, with the highest rate for highly mixed waste, and lower rate for construction materials with less mixing. Hence, contractors who do not adopt selective demolition or sorting would have to pay a higher cost for disposal of the mixed materials. |
| (d) measures to foster an environment conducive to the development of recycling business for construction and demolition waste. | We have been carrying out various measures to facilitate the development of the recycling business for construction materials.<br><br>To promote the use of recycled construction material products, public works contracts are required to use recycled aggregates as far as possible.<br><br>We have set up a temporary construction materials recycling facility in Tuen Mun and the recycled aggregates are used in public works projects.<br><br>We have also solicited the support of quasi-government bodies e.g. Urban Renewal Authority, Kowloon-Canton Railway Corporation and MTR Corporation etc, as well as private developers/ contractors to deliver suitable hard inert materials to the recycling facility for | USA<br>There are laws requiring contractors to recycle a minimum amount of construction waste or banning certain waste types (e.g. wood waste) from disposal at county landfills.<br><br>For some "green building" programmes, contractors are required to earn a certain number of points (e.g. through material reuse and recycling) to obtain permits for new construction or renovation works.<br><br>Tax exemption is available through the “donation” of salvaged materials to other construction projects.<br><br>Germany<br>Contractors are required to deliver their construction materials to recycling plants. A certificate will be issued to certify that the materials have been properly handled. |

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| | processing.<br><br>We also plan to establish a construction materials recycling facility in Kai Tak.<br><br>The differential charges under the proposed construction waste disposal charging scheme (with landfill charge the highest and public fill charge the lowest) would encourage recovery, reuse and recycling of construction materials.<br><br>On the research and development front, the Government has been funding research studies and trial projects on the sorting, reuse and recycling of construction materials. There have been some encouraging results, e.g. production of paving blocks made with recycled aggregates. Such paving blocks are being used in Government projects. | <u>Denmark</u><br>There are regulations requiring sorting, reuse and recycling of construction waste.<br><br>The government provides funding to support projects relating to construction material recycling.<br><br>Also, a tax is imposed on natural aggregate materials to encourage the use of recycled aggregates. |

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| (2) To advise the basis upon which the respective fees for different reception facilities are arrived at. | <u>Landfill charge</u><br>The proposed charge ($125/tonne) represents full cost recovery of the capital ($56/tonne) and recurrent ($69/tonne) costs.<br><br><u>Sorting charge</u><br>The proposed charge ($100/tonne) represents full cost recovery of the estimated capital and recurrent costs of the sorting facilities. With the estimated annual capital and operation costs of about $76.7 million, and the estimated quantity of about 737,500 tonnes of mixed construction waste to be handled each year, the average unit sorting cost per tonne is about $100.<br><br><u>Public fill charge</u><br>The proposed charge ($27/tonne) represents full cost recovery of the capital and recurrent costs of the public fill reception facilities. With the annual capital and operation costs of about $325.6 million, and the estimated quantity of about 12 million tonnes of public fill handled each year, the average unit sorting cost per tonne is about $27. |
| (3) To consult the Legislature and the affected trades on the draft manual, including the reference table for determining the content of waste, for site staff of different reception facilities. | We are, in consultation with the Department of Justice and the Independent Commission Against Corruption, working out management and control measures to safeguard against possible abuses or malpractices.<br><br>We will also set up a tripartite working group with representatives from the construction industry, waste haulers and the waste facility operators to discuss the operational details of the charging scheme. We will take into account the trades' comments when drawing up the operational manual for site staff of different waste disposal facilities.<br><br>A draft reference table for determining the content of waste is at Annex II. It should be noted that the table is subject to revision. |

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| (4) To seriously consider extending the direct payment system to cover both major and minor waste producers, thereby obviating the need to involve waste haulers to collect the charges from waste producers. | Our original proposal is to establish a direct payment system requiring major waste producers (i.e. any principal contractor who undertakes a construction work valued $1 million or above) to open accounts and pay waste disposal charges to the Government direct. These major waste producers are mainly construction contractors who generate about 70 - 80% of construction waste.<br><br>For the remaining 20-30% of construction waste mostly arising from renovation works, we have proposed to levy the charges through waste haulers who deliver the waste to the waste facilities. The charges will be collected on a monthly basis with a credit period of 30 days. Collection of the charges from waste haulers will be suspended if they produce evidence that they are unable to collect the same amount from the waste producers.<br><br>However, noting the waste haulers' grave concerns about possible bad debt and cashflow problems, we are discussing with them the following alternative arrangements –<br>(a) to remove on-site payment; and<br>(b) to require all charges to be paid through billing accounts.<br><br>Under the alternative option, instead of levying charges on waste produced by minor waste producers through waste haulers, all charges would need to be paid through billing accounts.<br><br>While we would urge minor waste producers to open billing accounts to pay charges to Government direct, we cannot forbid waste haulers from opening billing accounts. Also, there would be no payment suspension arrangement under this option.<br><br>Waste haulers' associations welcome this alternative option. However, we are aware that this may cause inconvenience to ad-hoc facility users who do not have a billing account. We are discussing the detailed arrangements with the trade. |

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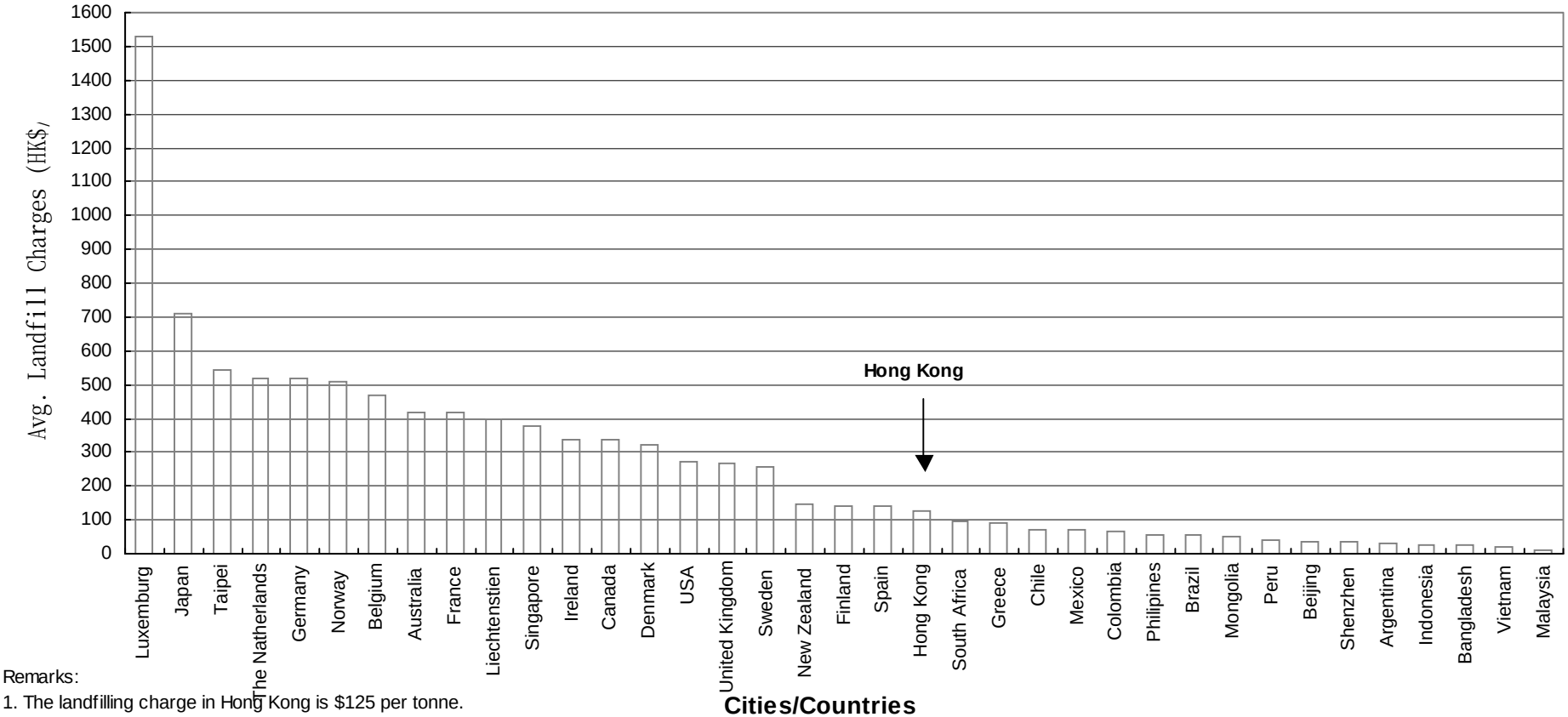
| (5) To clarify the employer-employee relationship under proposed section 16A, particularly in the event of subcontracting. | Under the proposed s.16A(2) in the Bill, if waste is deposited from a vehicle (not being used as a public transport carrier), the driver of the vehicle at the time when the waste is deposited from it and the person employing that driver to drive the vehicle at that time will be regarded as causing the waste to be deposited for the purposes of the proposed s.16A(1).<br><br>The proposed s.16A(2)(b) is intended to apply to the employer (if any) who employs the vehicle driver as an employee to drive the vehicle at the material time because the employer generally is in a position to supervise and decide the way in which his employee carries out the task (such as the time and the place for performing the task). The proposed s.16A(2)(b) is not intended to apply to a self-employed driver's client who hires the driver as an independent contractor, say, to remove waste from a site because the client generally will not have control over the manner in which the self-employed driver goes about performing that task.<br><br>In determining whether a person is an employee or an independent contractor, the courts have formulated various tests that look at factors such as the degree of control, the manner of payment, the agreement between the parties and the ownership of the equipment or vehicle involved. However, as those tests are in no way exhaustive and no single rule is generally applicable, each case depends very much on its own facts. |

Annex I

## Landfilling Charges of Other Cities/Countries




Remarks:

1. The landfilling charge in Hong Kong is $125 per tonne.
2. The landfilling charges of other countries are gathered from various documents/publications, which may be calculated under different conditions and assumptions, and cover large variations between countries and cities. The charges rates vary according to exchange rates.

Annex II

**Draft reference table for determining the content of waste at landfills, sorting facilities and public fill reception facilities**

The waste acceptance criteria of the three types of construction waste disposal facilities are as follow –

(a) Landfills – to receive mixed construction waste with not more than 50% inert content;

(b) Sorting Facilities – to receive mixed construction waste with more than 50% inert content; and

(c) Public fill reception facilities – to accept pure inert public fill.

A survey had been carried out to determine the relation between the inert content and the weight of the waste load. It was found that for the range of inert content between 45% and 55%, the corresponding "Net Weight/ Permitted Gross Vehicle Weight of a vehicle" (Net Wt/GVW) would be about 9-20%.

We initially consider that the dividing line for acceptance of waste at landfills or sorting facilities should be set at 20% Net Wt/ GVW (i.e. inert content of the waste load is not less than 50%). If the "Net Wt/GVW" of a vehicle is greater than 20%, it will not be allowed to enter the landfill for waste disposal. Similarly, if the "Net Wt/GVW" of a vehicle is smaller than 20%, it will not be allowed to enter the sorting facilities. Some examples are shown below –

| Gross vehicle weight of vehicles (GVW) | Net Weight of Waste load (Net Wt)<br><br>(tonnes) | In-weight of the vehicle carrying a waste load with more than 50% inert content (i.e. 20% Net Wt/GVW)<br><br>(tonnes) |
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| 10 tonnes | 2 | 8 |
| 16 tonnes | 3.2 | 13.2 |
| 24 tonnes | 4.8 | 18.8 |
| 30 tonnes | 6 | 24 |

For example, if the in-weight of a vehicle of 24 tonnes GVW is greater than 18.8 tonnes, the vehicle will be refused to enter the landfill for waste disposal.

For public fill reception facilities, as these facilities will only accept 100% inert construction waste, visual inspection is sufficient to differentiate inert and non-inert construction wastes. No reference to the weight of the truckload is needed for determining whether the truckload should be accepted.