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Background brief on
Waste Disposal (Amendment) (No.2) Bill 2003

Purpose

This paper sets out the background to the introduction of the Waste Disposal (Amendment) (No. 2) Bill 2003, inter alia, the Landfill Charging Scheme (the Scheme), and provides a summary of the major concerns expressed by members of different committees.

Background

2. The amount of solid wastes has substantially increased as a result of the continuous growth in population and economic activities. The majority of these wastes are generated from the commercial/industrial sectors, construction and demolition (C&D) wastes from the construction industry in particular. These wastes are collected and delivered to the three government landfills by private waste collectors. Since landfill disposal is free of charge, there is no incentive for waste reduction and recycling. The indiscriminate disposal has also led to rapid depletion of limited landfill capacity and advanced the need for replacement of disposal facilities.

3. To progressively recoup the landfill disposal cost according to the polluter-pays principle and to provide the necessary economic incentive for waste minimization as well as recycling and reuse, a proposal to charge for the disposal of privately-collected waste was first put forward in 1993. Under the Scheme, all privately-collected wastes delivered to landfills would be subject to charging. The initial charging level was set to recover 50% of the landfill disposal cost and gradually increased to achieve full cost recovery. This step-by-step approach would allow time for waste producers to take appropriate measures to reduce, recycle and reuse their waste. To give legal effect to the charging scheme, the Waste Disposal (Charges for Disposal of Waste) Regulation was introduced and enacted in May 1995. It set down the legal framework for the proposed charging scheme which was based on a per-tonne charging system and the use of prepaid tickets. The level of charge was set at $45 per tonne of waste.

4. The Regulation was opposed by the waste collection trade because the proposed charging arrangement would not only give rise to cash flow and bad debt problems, but also was at variance with the trade practice of the construction waste haulers who were paid by their clients on a vehicle-load basis. In June 1995, a landfill blockade was staged by some trade associations as a move to protest against the scheme. The blockade ended with the Administration undertaking not to implement landfill charging before reaching an agreement with the trade. It also resulted in the amendment of the Regulation to enable landfill users to pay the charge by tonnage as well as by vehicle load.

5. Since the landfill blockade, many rounds of meetings between the Administration and the relevant trade associations were held in an attempt to arrive at an acceptable charging arrangement. After almost two years of negotiation, a revised proposal allowing users to choose among the following three charging options were put forward for consultation with the trade –

(a) the prepaid ticket system for ad hoc landfill users;

(b) the chit-based account system for construction waste haulers; and

(c) the vehicle registration mark-based account billing system for commercial/industrial waste haulers, i.e., charges levied directly on the waste producer.

Feedback to the Administration indicated that the concern on bad debts remained unresolved as the Government was not able to underwrite any commercial bad debts using public funds. Direct charging of waste producers was also considered not feasible in many cases, particularly for commercial/industrial wastes which frequently involved collection of waste from many waste producers at the same multi-storey building. There was also concern over the security deposit requirement for account opening and cash flow problems.

6. In the light of concerns of the construction industry and waste haulers, the Administration put forward a further revised arrangement in 2002, as follows -

(a) charging all C&D waste disposed of at landfills at $125 per tonne to recover fully the capital and recurrent costs of the three existing landfills;

(b) exempting all construction contracts that had already commenced and/or that were signed before the implementation of the Scheme;

(c) establishing a direct settlement system so that major C&D waste producers would pay the landfill charge direct to the Government, thereby obviating the need for waste haulers to collect/handle such a charge; and

(d) charging waste haulers for wastes arising from ad hoc renovation works as there were no effective means to extend the direct settlement system to small C&D waste producers.

To reduce the amount of waste disposed of at landfills, two sorting facilities would be made available to assist the construction industry, particularly those waste producers who could not carry out on-site sorting due to physical constraints of the sites, to separate the inert portion from the non-inert portion of mixed construction waste. A number of public fill reception facilities would also be made available to receive pure inert public fill. In line with the user-pays principle, disposal of construction waste at sorting facilities and public fill reception facilities would be charged at about $100 and $27 per tonne respectively.

7. The revised arrangement was discussed by the Environmental Affairs Panel (EA Panel) on 25 February, 27 May and 24 June 2002 as well as 28 April and 24 November 2003. Deputations were invited to express their views at the meeting on 24 June 2002. When the Director of Audit's Report No. 38 on "Management of construction and demolition materials" was discussed by the Public Accounts Committee (PAC) in 2002, members expressed dismay that despite the enactment of the Waste Disposal (Charges for Disposal of Waste) Regulation in June 1995, the Scheme had not been implemented. They urged the Administration to expeditiously implement the Scheme.

8. On 5 December 2003, the Waste Disposal (Amendment) (No. 2) Bill 2003 was introduced into the Council. The main purposes of the Bill are to -

(a) provide statutory basis for introducing a charging scheme for the disposal of construction waste at landfills, sorting facilities and public fill reception facilities; and

(b) strengthen the control against illegal disposal of waste.

Deliberation of the EA Panel

9. The focus of discussion on the revised Scheme was on the charging arrangements. It was noted that waste haulers remained opposed to any form of participation in the Scheme despite the Administration's proposals, such as billing waste haulers on a monthly basis, offering them a credit period and waiving the requirement for security deposit, to allay their concern on cash flow problems. They had counter-proposed that the direct settlement system be extended to all waste producers, including developers, contractors as well as property management companies, and that payment should be made via a chit system to be settled monthly. For minor works, payment should be borne by the waste producers concerned through the respective management companies. In this way, landfill charges could be settled in an administratively simple manner without the need to involve waste haulers.

10. To avoid the delivery of inappropriate waste to the facilities, it was proposed that site staff would be empowered to inspect the vehicles arriving at these facilities and determine if they were carrying the appropriate waste for the facilities in question based on visual inspection. Concern had been raised on the possible disputes between waste producers and waste haulers over the cost for disposal of construction waste if the determination of inert content of waste load was based on visual inspection. There might be circumstances where different waste haulers would have different charges for the same waste load, thereby leading to contention within the trade over the pricing of waste disposal.

11. Question had also been raised on the small difference of $25 between sorting and landfill charges which might not be able to provide the necessary incentive for waste producers to use the sorting facilities, particularly those whose construction sites were far away from these facilities. To allow greater flexibility, consideration should be given to allowing the contractors to decide on the fee levels for the sorting facilities.

12. While supporting the Scheme, some members pointed out that from a policy point of view, it might not be fair to hold waste haulers responsible for payment of waste disposal charges who were not waste producers but involved in the delivery of waste. Such an arrangement was at variance with the "user-pays principle". Further consultation with the trades on the charging arrangement, including guidelines on the collection of landfill, sorting and public fill charges, was necessary. Therefore, they welcomed the Administration's proposal of setting up a tripartite working group comprising representatives from the construction industry/waste haulers, waste facility operators and government departments concerned to resolve possible teething problems prior to the implementation of the Scheme.

13. To control against illegal disposal of waste, it was proposed that warrants be issued to the Director of Environmental Protection (DEP) so that he could enter domestic premises and private land for dwelling purposes to remove waste. Concern had been raised on the legal basis for the proposed issuance of warrants for DEP given that illegal disposal of waste was not a criminal offence at present. Members also considered that the Bills Committee to be formed to scrutinize the Bill might need to look into the implications of illegal disposal of waste in private land as this might involve a change of land use under the Town Planning Ordinance (Cap. 131).

14. The relevant extracts from the minutes of the EA Panel meetings on 25 February, 27 May and 24 June 2002 as well as 28 April and 24 November 2003 are at **Appendix I**. The relevant part of the PAC Report No. 38 is at **Appendix II**.

Council Business Division 1
Legislative Council Secretariat
13 April 2004

Appendix I

Extracts from the minutes of the Environmental Affairs Panel meetings

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Meeting on 25 February 2002

V Inviting expressions of interest in providing integrated waste treatment facility(ies)

(LC Paper No. CB(1) 1122/01-02(04) - Background brief prepared by the Legislative Council Secretariat

LC Paper No. CB(1) 1122/01-02(05)- Information paper provided by the Administration

18. DSEF(B) briefed members on the Administration's plan to invite expressions of interest (EoI) from local and international waste management industry in providing integrated waste treatment facility(ies) (IWTF) in Hong Kong by highlighting the salient points of the information paper.

The EoI exercise and the provision of IWTF

19. Noting that those taking part in the EoI exercise would not be given any advantage or preferential treatment in any subsequent procurement or tender exercise, the Chairman was concerned that there would not be any incentive for participation in the exercise, particularly when proponents were expected to provide detailed information on their proposed technologies which might involve revelation of confidential business information. DSEF(B) informed members that this was not the first time that the Administration had embarked on an EoI exercise. In fact, EoI exercises on the recycling of glass bottles, waste tyres as well as construction and organic waste had been conducted in the past few months and quite a number of submissions had been received. Proponents were keen to introduce their new and innovative technologies to the Government. Subject to members' agreement, the Administration would invite EoI in April 2002 in developing IWTF in Hong Kong. The Panel would be informed of the outcome of the EoI exercise and the technical assessment. The Director of Environmental Protection (DEP) added that a number of consulates and companies in Hong Kong had expressed interest in the EoI exercise. They were aware of the way the exercise would be carried out and were keen to participate. On the concern about possible leakage of commercially sensitive information, DEP assured members that the Administration would put in place measures to ensure that this would not happen. He added that an Advisory Group would be set up to increase transparency and assist the Government in considering the EoI submissions. Mr LAW Chi-kwong expressed support for the EoI exercise as it would bring about new technologies to Hong Kong. He also hoped that the Administration would adopt different types of new technologies in Hong Kong.

20. On Ms Emily LAU's enquiry about the cost of IWTF, DSEF(B) said that this would depend on the choice of technology to be adopted and the size and number of IWTF sites. The Administration would be in a better position to provide a cost

estimate of IWTF upon completion of the EoI exercise and assessment of the options since IWTF might also perform waste recovery and recycling which might generate revenue. PAS/EF(B2) added that once a decision was reached on the technology(ies) to be adopted, the Administration would then consider the possible location(s) to site the facility(ies), assess the engineering, environmental and economic viability of the site(s) concerned, and carry out public consultation on the propose location(s).

21. Ms LAU expressed disappointment at the long time taken to develop IWTF. DEP said that while the Administration was also keen to have IWTF in place at the earliest possible time, consultation had to be conducted before reaching a consensus on the choice of site. It would also take time to carry out the statutory Environmental Impact Assessment and the tendering process to ensure that public money was well spent. He nevertheless assured members that the Administration would endeavour to have IWTF in place as soon as practicable.

Target recycling rate

22. Referring to paragraph 5 of the Administration's paper, the Chairman considered that the target recycling rate of 40% by 2007 was too conservative. Her concern was shared by Ms Emily LAU. DSEF(B) advised that the target was set in 1998 and efforts were being made to achieve such a target. DEP supplemented that at present, the overall recovery rate in Hong Kong was about 35% which was comparable to most developed countries. In fact, Hong Kong had surpassed most cities like London and Tokyo in terms of waste recovery. He added that comparisons with other countries would only be meaningful if these were made on a like-to-like basis. By way of illustration, countries like Denmark which was said to have a recovery rate of over 60% had included the recycling of construction and demolition (C&D) waste. If C&D waste were to be included, Hong Kong would have already achieved a recycling rate of 66%. He also pointed out that some countries regarded avoidance from disposal at landfills as waste recovery and hence waste incinerated would be taken as waste recovered. Other countries such as the United States and Australia had waste components like garden clippings which could easily be re-used as compost, thereby resulting in high recovery rates.

23. In response to the Chairman's enquiry on the manner in which the four million tonnes of unrecyclable wastes would be handled, DSEF(B) said that IWTF would help reduce the volume of unrecyclable waste while landfills would serve as the final repositories for the waste. The Administration maintained an open mind on the technologies to be adopted in IWTF. Meanwhile, a study on the possible extension of existing landfills and development of new landfills was underway and the results would be presented to the Panel early next year.

Landfill Charging Scheme

24. Ms Emily LAU expressed support for the imposition of landfill charges and considered it necessary that the public be educated on the need to extend the life span of landfills through reduction of waste. She also agreed with the Administration that the Landfill Charging Scheme (the Scheme) should apply to all C&D waste producers

with no exemption for small C&D waste producers. As regards waste haulers' concern on the charging arrangement, Ms LAU opined that measures could be worked out to address their concern but this should not impede the implementation of the Scheme. She further enquired whether additional space would be made available for sorting of waste after the Scheme had come into operation.

25. DSEF(B) advised that at present, C&D sorting facilities were made available in Tuen Mun and Tseung Kwan O. He added that the Administration was aware of the need for providing more sorting facilities to assist in the recycling of waste and would continue to identify suitable sites for this purpose. PAS/EF(B2) supplemented that consideration would be given to earmarking land near to landfills for sorting purpose. The detailed arrangements would be worked out.

26. Ms Cyd HO opined that landfill charges should not be regarded as a source of revenue but should be used in the development of waste recovery industries and facilities. Besides, the proposed charge of $125 per tonne would not be able to recoup the waste treatment cost of over $900 per tonne nor compensate the loss of precious landfill space. As such, efforts should be made to foster the recycling industry which would assist in the avoidance of waste at landfills. While affirming that landfill charges would form part of public revenue, DSEF(B) stressed that these were not aimed at generating revenue but served as an economic incentive to reduce waste. Moreover, the public funding required for the development of waste treatment facilities would far exceed the landfill charges collected. He nevertheless agreed to relay Ms HO's suggestion of using landfill charges to subsidize recycling activities to relevant bureau for consideration. In response to the Chairman, DSEF(B) confirmed that landfill charges would also apply to Government departments and public organizations.

27. Noting that the main obstacle in implementing the Scheme was the opposition from waste haulers who refused to pay/handle the charge on behalf of small C&D waste producers, Mr LAW Chi-kwong asked if consideration could be given to introducing a permit system requiring small C&D waste producers to apply for permits prior to commencement of renovation works. DEP advised that in countries with a landfill charging system, waste haulers were required to settle payment at the entrance of landfills. However, waste haulers in Hong Kong were reluctant to participate in the Scheme in any way and had maintained their opposition. They expressed concern that instead of charging individual waste producers for the C&D waste being handled, waste haulers would be required under the Scheme to charge the waste producers the additional landfill charges payable to the Government. This might give rise to problems such as bad debt which would hamper their business. While the concerns of waste haulers were not well founded, they had taken a very strong position and had blockaded the landfills when the Administration intended to implement landfill charges a few years ago. To this end, a direct settlement system would be established under the current proposal so that major C&D waste producers would pay the landfill charges direct to the Government, thereby obviating the need for waste haulers to collect/handle these charges. As it would be administratively difficult and extremely expensive to apply the same to more than 300 000 potential small C&D waste producers involved in renovation works and minor construction

sites, it was recommended that landfill charges arising from these ad hoc construction works be handled by waste haulers. To allay the concern on cash flow problems, waste haulers would be billed on a monthly basis and given a credit period. In the event of disputes arising from collection of landfill charges from waste producers, waste haulers could lodge their claims to the Small Claims Tribunal and action would be taken to suspend the recovery of charges. However, after repeated negotiations, the waste haulers remained opposed to any form of participation in the Scheme. On the number of waste haulers involved, DEP advised that it was estimated to be in the region of two to three thousand. To facilitate members' understanding, the Administration undertook to provide the collection arrangements for landfill charges adopted by other countries.

28. Given that the subject had been dragged on for a long time, Ms Emily LAU considered it necessary for the Administration to finalize its proposals for the Scheme. She said that in the light of the proposals, the Panel could then invite views from waste haulers and the affected trades. DSEF(B) said that the main proposals of the Scheme were set out in the information paper provided. The Administration would again consult the waste haulers associations, the construction industry and other affected trades on these proposals. Based on the outcome of consultation, the Administration would decide on the way forward for the Scheme. He welcomed members' views in this respect. To enable the Panel to gauge views from the affected parties, the Chairman requested the Administration to provide within this legislative session implementation details of the Scheme, including charging arrangement, timetable, availability of sorting facilities etc. In this way, the outcome of consultation on the Scheme would be able to tie in with the outcome of the EoI exercise in July 2002. Noting that waste haulers were not opposed to the implementation of the Scheme but were more concerned about the requirement for them to pay/handle the landfill charges on behalf of small C&D waste producers, Ms Cyd HO considered it useful to invite them to make suggestions on how the problem could best be resolved.

Progress on waste recycling initiatives

29. On ***enhancing public education and community involvement***, Ms Cyd HO supported the proposed capital injection of $100 million to the Environmental and Conservation Fund for use by community-based recycling projects. She however expressed concern that the provision of IWTF with large-scale sorting facilities on site would compromise the survival of smaller waste recycling businesses. DSEF(B) said that the Advisory Group set up to assess EoI submissions would look into the social impact of IWTF which included community perception and employment opportunities.

30. On ***recycling bins and collection service for recyclables***, PAS/EF(B)(2) advised that the effect of the increased provision of recycling bins in public places, private housing estates and schools had yet to be seen as these were only put in place in mid-December 2001. However, there had been an increase in the number of recycled plastic bottles consequent upon the launching of publicity campaigns. The Assistant Director of Environmental Protection (Waste Facilities) (ADEP(WF)) added that the Environmental Protection Department had embarked on a pilot collection

scheme for plastic bottles in 252 public/private housing estates. The bulk of plastic bottles collected had increased from 10 000 kilograms (kg) in September 2001 to 14 000 kg in October 2001 and 17 000 kg in November 2001. These figures revealed that there had been active public participation in the waste recycling initiatives. In addition, the Housing Department had launched a trial scheme of putting in place recycling bins on every floor of Chun Shek Estate in Shatin and Chak On Estate in Sham Shui Po with a view to encouraging waste recycling. Members would be informed of the outcome of the waste recycling initiatives in due course.

31. On ***government leadership***, the Chairman asked if the procurement guidelines for Government departments to use green products would apply despite the higher cost of these products. DSEF(B) advised that a Working Group had been set up within the Government to advise on the procurement of environmental friendly products. Guidelines in this respect had been issued and preference would be given to the use of green products where appropriate. The higher cost of green products would be absorbed through environmental practices such as economizing the use of paper and reducing the number of circulation copies. Good cooperation had been achieved within Government departments.

32. On ***other new initiatives***, the Chairman enquired about the progress of the establishment of a composting plant at Ngau Tam Mei. ADEP(WF) advised that an EoI exercise had been conducted on the recycling of organic waste in the composting plant and about seven or eight submissions had been received. The Administration would be inviting tenders in the next few months. The organic waste to be recycled as compost would mainly include food scraps from restaurants and food manufacturing industries. Other organic waste such as garden clippings would also be recycled.

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Meeting on 27 May 2002

VI Proposed Landfill Charging Scheme

(LC Paper No. CB(1) 1811/01-02(06) — Background brief prepared by the Legislative Council Secretariat

LC Paper No. CB(1) 1811/01-02(07) — Information paper provided by the Administration)

16. The Deputy Secretary for the Environment and Food (B) (DSEF(B)) briefed members on the proposed Landfill Charging Scheme (the Scheme), highlighting the salient points in the information paper.

Charging arrangements

17. On construction and demolition (C&D) waste generated from construction sites, Ms Miriam LAU questioned the need for the proposed chit system given that major

C&D waste producers were already account holders registered with the Government who should be allowed to settle payment electronically. In this way, waste haulers would not have to pay the landfill charges upfront even if they were not given the required chits by their clients. Mr LEE Cheuk-yan supported the use of electronic payment system as this would address waste haulers' concern over the time required to wait for the chits before they could leave the construction sites.

18. In reply, DSEF(B) said that the purpose of the chit system was to allow an efficient charging arrangement. Operators at the weighbridge of landfills would input information contained in the chits into the computer system. The computer would compare the charge on a per tonne basis and on a per vehicle basis and automatically debit the lower one to the relevant chit accounts. The Environmental Protection Department (EPD) would issue invoices to major waste producers based on the waste volume recorded in the accounts over the month. A chit system was required as the actual volume of waste delivered to landfill on vehicles could vary significantly. Ms LAU however pointed out that information such as the location of construction site from which the waste was generated and the licence plate number of the dump truck could also be used to facilitate charging. There might not be a need for the chit system which could be open to abuse and malpractice. PAS/EF(B2) responded that the chit system was a necessary arrangement as the amount of waste could be recorded and checked against by the waste producers and haulers. The Assistant Director of Environment Protection (Waste Facilities) (ADEP(WF)) added that the chit system was jointly worked out with the construction trade. The system would allow for greater control over waste production by contractors. Besides, the construction trade would prefer a chit system to an electronic charging system as a first step of implementation as the latter would have cost implications.

19. As regards C&D waste arising from ad hoc renovation works, ADEP(WF) said that a computerized account billing system would be established for waste haulers who handled this type of waste. Under the system, waste haulers would be required to first register their vehicles and open an account with EPD based on the vehicle registration mark (VRM). Operators at the weighbridge of landfills would input the VRM number into the computer system and vehicles with valid VRM could enter. EPD would record the amount of waste carried by a VRM vehicle. Invoices would be sent to the account holders based on their accrued usage over a month. A credit period of 30 days would be given and a security deposit would not be required.

Operational difficulties of the Scheme

20. While appreciating the proposal of suspending payment of landfill charges if waste haulers had clear evidence to show that they were unable to recover the charges from waste producers within the credit period, Ms Miriam LAU expressed concern that this might not be implemented in practice since waste haulers might have difficulties in providing such evidence if they did not have details of the waste producers. To ensure that waste haulers would not have to bear the charges if they were not able to secure payment from waste producers, Ms LAU asked if Government was prepared to write-off the charges if the waste haulers failed to recover the charges. She also enquired about the types of evidence that would be required to justify the writing-off of

charges. DSEF(B) affirmed that payment of landfill charges would be suspended if haulers had clear evidence to show that they failed to recover the charges from the waste producers within the credit period. The Administration was working on measures which would allow suspension of payment of charges by waste haulers on the one hand and prevent possible abuse of such a suspension arrangement on the other. One option was the application submitted by waste haulers to the Small Claims Tribunal (SCT) for recovery of landfill charges and transportation charges from waste producers. Government would accept this as hard evidence that they were unable to recover the landfill charges from waste producers within the credit period. Upon receipt of this, Government would not require them to settle payment unless and until the charges were recovered from waste producers.

21. Ms LAU considered that the proposed arrangement for debt recovery through SCT was unduly cumbersome and would create unnecessary hardship to waste haulers. She asked if the Administration would consider accepting a declaration under oath made by waste haulers that they were unable to recover landfill charges from construction contractors as an alternative. DSEF(B) said that it would be for the waste haulers to decide whether they should proceed with court action to recover the debt. The Administration was prepared to provide suitable assistance to waste haulers in submitting applications to SCT for debt recovery. On Ms LAU's proposal of requiring waste haulers to make statutory declarations, DSEF(B) noted that such declarations under oath were legally binding and said that the Government would give serious consideration to this proposal.

22. Mr LEE Cheuk-yan suggested that to facilitate waste haulers in making declarations under oath, consideration could be given to deploying officers at landfills to administer oaths. Notwithstanding, Mr LEE remained concerned about the operational difficulties associated with the Scheme. He pointed out that in the case of domestic renovation works, waste haulers were not paid upfront but at a later stage by the contractors concerned. Given that details which waste haulers might have regarding the contractors were usually limited to pager or telephone numbers, it would be unlikely for them to make any declaration or claim for charge recovery in the absence of personal details of the debtors. Since it would be unfair for waste haulers to settle payment upfront on behalf of their clients, Mr LEE suggested that consideration should be given to exempting small waste producers from the Scheme until ways to resolve the operational difficulties of waste haulers were identified. DSEF(B) said that the Administration would not favour any scheme that would not cover renovation waste because it was extremely difficult to differentiate C&D waste coming from construction and renovation sites. To make the scheme successful, it must cover both construction and renovation waste. He stressed that the main purpose of the Scheme was not to raise revenue but to create an incentive to reduce waste. As such, any further major compromise might defeat the purpose of the Scheme. Besides, the proposal put forward by Mr LEE would likely provide immense opportunities for abuse.

23. As waste haulers were collecting landfill charges on behalf of the Government, Dr LO Wing-lok suggested that consideration could be given to offering a 20% rebate of the charges to waste haulers as an incentive for waste collection and disposal.

While agreeing that waste haulers were not waste producers, DSEF(B) pointed out that they earned their living by collecting and disposing waste at landfills. As waste haulers were landfill users, it was not unreasonable to hold them responsible for collecting landfill charges, a practice adopted by overseas economies practising landfill charging. Nevertheless, the Administration acknowledged the trade's concern about bad debts and had therefore come up with the proposal to allow suspension of payment of landfill charges should haulers have evidence on recovery problem.

Consultation with waste haulers

24. Ms Emily LAU expressed concern that the Administration was not able to convince the trade on the implementation of the Scheme despite protracted negotiation over the years. DSEF(B) said that the Scheme as revised had incorporated various features to address the trade's concerns, particularly those on cash flow and bad debt problems. However, the Administration could not accede to the waste haulers' request to extend the direct settlement system to all other waste producers given the large number of renovation waste producers involved. He added that the present proposal of the Government was already much more accommodating than most overseas economies which adopted only a "gate fee" system to collect landfill charges.

25. The Director of Environmental Protection said that he failed to understand why waste haulers were still adamantly opposed to the Scheme when concessions had already been made to meet their demands. He pointed out that about 90% of transactions involving ad hoc renovation works involved payment of cash upfront to waste haulers. It was therefore expected that only a small percentage of waste haulers would be exposed to potential bad debts. Besides, they could refuse to provide the service in the event of non-payment of charges. Notwithstanding, the Administration was prepared to accept basic evidence for suspending payment in the case of bad debts. He said that the Scheme had incorporated more concessions than any other overseas economies and there should not be any concern that it would bring about financial hardship to waste haulers. PEPO(FP) added that he had met with waste haulers' associations, renovation contractors and management companies to understand the operation of the affected trades. They generally supported the Scheme in principle provided that a proper charging arrangement was in place. While appreciating the need to address the trades' concerns and the operational difficulties arising from the Scheme, Ms Emily LAU considered it necessary to take forward the Scheme which had been held up for many years and subject to criticism by the Public Accounts Committee.

26. In concluding, the Chairman said that members were in general supportive of the principles of the Scheme but measures had to be worked out to facilitate its implementation. The affected trades and interested parties would be invited to attend the next regular meeting on 24 June 2002 to present their views.

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Meeting on 24 June 2002

IV Proposed Landfill Charging Scheme

Meeting with Conservancy Association (CA)
(LC Paper No. CB(1) 2075/01-02(03) -- Submission from CA)

6. Mr Gordon NG said that CA welcomed the proposed Landfill Charging Scheme (the Scheme) as an important step to a sustainable waste management regime comparable to other developed economies. The levy of landfill charges according to the polluter-pays principle would provide financial incentive to discourage indiscriminate disposal at landfill through waste recycling and minimization, which would in turn benefit the recycling industry. The Government's effort to address waste haulers' concerns about cash flow and bad debt problems was also commendable. CA proposed that revenue generated from the Scheme be used to implement waste reduction and minimization measures, and that other forms of economic incentives, such as producer responsibility and preferential procurement, be implemented to complement landfill charges. Apart from construction and demolition (C&D) waste, consideration should be given to extending the Scheme to cover waste from industrial, commercial and domestic sources.

Meeting with Friends of the Earth (FOE)
(LC Paper No. CB(1) 2075/01-02(04) -- Submission from FOE)

7. Mr Edwin LAU said that FOE fully supported the Scheme which should have been implemented in 1995. It provided the necessary incentive to minimize waste generation and maximize waste recovery, thereby boosting the recycling industry. Meanwhile, measures should be taken to avoid fly-tipping and enhance public awareness of the Scheme. Efforts should also be made to minimize the potential dispute between waste haulers and their clients and to extend the Scheme to other waste producers.

Meeting with Real Estate Developers Association of Hong Kong (REDA)
(LC Paper No. CB(1) 2075/01-02(05) -- Submission from REDA)

8. Mr Martin TAM said that REDA supported the principle of landfill charging to discourage indiscriminate dumping of C&D waste at landfills. However, concerted effort from relevant departments was essential to ensure the effective implementation of the Scheme, particularly amid the economic downturn. In order for the Scheme to work out smoothly in the beginning of the waste management and reduction regime, the Administration should take into account the valid concerns of other constituents of the construction industry in defining and fine tuning details of the Scheme.

Meeting with Hong Kong Construction Association Limited (HKCA)
(LC Paper No. CB(1) 2075/01-02(06) -- Submission from HKCA)

9. Mr Joseph SHEK said that HKCA was in support of the Scheme. While welcoming the proposal to exempt all construction contracts signed before the

implementation of the Scheme, HKCA held the view that the exemption be extended to all construction projects tendered before the implementation of the Scheme. Given the space constraint in most construction sites to have in place sorting facilities, the landfill charge of $125 per tonne might not be able to serve as an incentive for on-site separation of C&D waste but would likely induce fly-tipping. Besides, the high landfill charge would undoubtedly create additional financial burden on the construction industry, particularly amid the economic downturn. He added that as part of the waste management regime, there should be better co-ordination between the Scheme and other waste reduction and recycling schemes.

Meeting with Hong Kong Association of Property Management Companies (HKAPMC)
(LC Paper No. CB(1) 2075/01-02(07) -- Submission from HKAPMC)

10. Mr Raymond CHAN said that HKAPMC was in support of the Scheme. However, consideration should be given to requiring waste producers of ad hoc renovation projects to pay the collection and landfill charges to waste haulers direct to reduce the administrative cost.

Meeting with Hong Kong Waste Management Association (HKWMA)
(LC Paper No. CB(1) 2075/01-02(08) -- Submission from HKWMA)

11. Mr Daniel CHENG said that HKWMA supported the introduction of landfill charge which would form an integral part of a sustainable waste management system. The proposed charge would serve as an effective incentive to waste minimization and recycling.

Meeting with Waste Reduction Committee (WRC)
(LC Paper No. CB(1) 2075/01-02(09) -- Submission from WRC)

12. Ir Otto POON said that WRC fully supported the Scheme as an important element of a sustainable waste management regime. At present, free disposal at landfill discouraged waste recovery and recycling. The Scheme would provide direct economic incentive for the community to reduce waste which was essential to achieve the target as set out in the Waste Reduction Framework Plan. Therefore, WRC supported the early introduction of the Scheme to cover C&D waste first with a view to including other types of waste in the near future.

Meeting with Waste Reduction Task Force for the Construction Industry (the Task Force)
(LC Paper No. CB(1) 2075/01-02(10) -- Submission from the Task Force)

13. Mr David WESTWOOD said that the Task Force agreed that landfill charging was one of the initiatives that should be implemented in order to achieve the objectives of waste reduction in Hong Kong. While supporting the Scheme, the Task Force considered it necessary for the Administration to address concerns raised by certain stakeholders regarding the implementation of the Scheme at the planning stage.

Meeting with Hong Kong General Chamber of Commerce (HKGCC)
(LC Paper No. CB(1) 2075/01-02(11) -- Submission from HKGCC)

14. Mr James GRAHAM said that HKGCC supported the principle of imposing a landfill charge on waste disposal. However, it should be noted that landfill charging was only one element of a comprehensive package of measures for waste management. These measures should include, among others, incentives for waste reduction and recycling, responsibility for packaging, building rehabilitation and alternatives to demolition. In gist, the Government should -

(a) implement landfill charging for construction and commercial waste;

(b) commence a detailed study on charging for domestic wastes;

(c) step up enforcement against and increase the penalty for illegal dumping; and

(d) develop a proactive programme to encourage waste reduction and recycling with a view to extending the life span of landfills.

Meeting with Professor POON Chi-sun of the Hong Kong Polytechnic University
(LC Paper No. CB(1) 2075/01-02(12) -- Submission from Professor POON Chi-sun)

15. Professor POON Chi-sun said that as a lecturer in waste management, he supported the Scheme since landfill charging was an integral part of a waste management system. It would provide economic incentives to waste producers to reduce and recycle wastes. Without the Scheme, most of the efforts currently devoted to waste minimization and recycling, both by the private and the public sectors, would not succeed. He considered the proposed charge of $125 per tonne to recover the capital and recurrent costs of landfills justified and reasonable. He was aware that the proposed charging arrangement had given rise to a lot of controversies, particularly among waste haulers. Based on his knowledge of the practices in overseas countries, it was the responsibility of waste collectors to collect and pay the landfill charges at the "gate" of the disposal facilities.

Meeting with Hong Kong, KLN & NT Refuse Collection Vehicle Owners Union Limited
(LC Paper No. CB(1) 2075/01-02(14) -- Joint submission from the Hong Kong Dumper Truck Drivers Association, Hong Kong, KLN & NT Grab Mounted Lorries Association Limited and Hong Kong, KLN & NT Refuse Collection Vehicle Owners Union Limited)

16. Mr HO Kwok-sun highlighted the salient points in the joint submission entitled "Objection against the shifting of responsibility from waste producers to waste haulers" from the Hong Kong Dumper Truck Drivers Association, Hong Kong, KLN & NT Grab Mounted Lorries Association Limited and Hong Kong, KLN & NT Refuse

Collection Vehicle Owners Union Limited. While supporting the polluter-pays principle, waste haulers associations were strongly opposed to the proposed charging arrangement on waste haulers for the transport of waste to landfills. They were concerned that the charging arrangement would expose waste haulers to cash flow and bad debt problems, which would in turn affect the survival of small transport companies and lead to possible monopolization of the waste collection trade by large corporations. They also queried if this was the right time to introduce landfill charges given the poor economy and high unemployment rate. Taking into account the mode of operation of the waste collection trade, the waste haulers associations proposed that the direct settlement system be extended to all waste producers, including developers, contractors as well as property management companies. Payment should be made via a chit system to be settled monthly. As for minor renovation works, payment should be borne by the waste producers concerned through the respective management companies. In this way, landfill charges could be settled in an administratively simple manner without the need to involve waste haulers.

Meeting with Hong Kong Dumper Truck Drivers Association (HKDTDA)
(LC Paper No. CB(1) 2075/01-02(13) -- Submission from HKDTDA)

17. Mr HO Hung-fai said that HKDTDA was concerned about the impact of the Scheme on the operation of the waste collection trade. The Administration should take into account the interest of all affected parties to work out an acceptable charging arrangement. He also pointed out that the proposed on-site payment of landfill charges on a "per-tonne basis" at the landfill gate for those waste haulers who had not registered their vehicles with the Environmental Protection Department (EPD) was at variance with the entire charging arrangement.

Meeting with Hong Kong, KLN & NT Grab Mounted Lorries Association Limited

18. As waste haulers were collectors rather than producers of waste, Mr CHAN Hon-chiu said that his association was strongly opposed to the requirement for waste haulers to register their vehicles under the Scheme. He said that the problems arising from the proposed charging arrangement could be effectively resolved by entrusting property management companies with the responsibility for settling landfill charges direct with EPD.

19. Members also noted the following submissions from organizations not attending the meeting -

(a)	LC Paper No. CB(1) 2075/01-02(15)	--	Submission from Green Power
(b)	LC Paper No. CB(1) 2075/01-02(16)	--	Submission from the Hong Kong Institution of Engineers
(c)	LC Paper No. CB(1) 2075/01-02(17)	--	Submission from the Advisory Council on the Environment

Meeting with the Administration

(LC Paper No. CB(1) 1811/01-02(06) -- Background brief prepared by the Legislative Council Secretariat

LC Paper No. CB(1) 1811/01-02(07) -- Information paper provided by the Administration)

20. With the consent of the Chairman, the Deputy Secretary for the Environment and Food (B) (DSEF(B)) took the opportunity to respond to some of the points raised by deputations. He was pleased that there was general acceptance that the Scheme would provide financial incentive to reduce waste, and that it would facilitate the development of the waste recycling industry. The imposition of landfill charges for C&D waste would be the first step. Efforts would be made to step up publicity on waste reduction. Sorting and waste recycling facilities would be provided to assist waste producers in reducing the amount of waste to be disposed of at landfills. Apart from exempting all construction contracts signed before the implementation of the Scheme, the Administration would work out with the trade details on the applicability of the Scheme to projects tendered before the implementation date.

21. On waste haulers' concern over the proposed account billing system, DSEF(B) pointed out that in many overseas economies, landfill charges were collected through a "gate fee" system whereby waste haulers or individuals who delivered the waste were required to pay the charges at the landfill gate. To address waste haulers' concern about the bad debt problem, the Administration had agreed to impose a direct settlement system for major C&D waste producers who generated 70% to 80% of all C&D waste. As regards waste haulers' proposal to extend the direct settlement system to the remaining 20% to 30% C&D waste arising mostly from ad hoc renovation works, DSEF(B) advised that this was not feasible since it was not possible to locate each of the over 300 000 small ad hoc waste producers each year. He added that the Administration also considered the suggestion of entrusting property management companies to handle the landfill charges not feasible as not all buildings were managed by property management companies. Therefore, there was no alternative but to collect the landfill charges through waste haulers. To allay their concern about cash flow problem, waste haulers would be billed on a monthly basis and given a credit period of 30 days. Measures would be put in place to suspend the payment of landfill charges if clear evidence was available to show that they failed to collect charges from waste producers within the credit period. Moreover, the Administration intended to set up a liaison group comprising representatives from the Government, Hong Kong Construction Association and waste haulers associations to sort out operational issues relating to the Scheme.

Discussion session

22. On ***waste reduction and recycling***, DSEF(B) noted Mr WONG Yung-kan's concern about the provision of sorting facilities to assist the construction industry to reduce and recycle C&D waste. In this connection, two sorting facilities, one in Tuen Mun near the West New Territories Landfill and another in Tseung Kwan O near the South East New Territories Landfill, would be set up. The Administration was

examining the implementation details of these facilities with a view to having them in place to tie in with the implementation of the Scheme.

23. Referring to the submission from REDA (LC Paper No. CB(1) 2075/01-02(05)), Ms Audrey EU asked if the Administration would consider specifying the types of C&D waste to be reused in building works as proposed. PAS/EF(B2) said that Authorized Persons were encouraged to effectively manage C&D waste and to apply re-usable materials in construction works where appropriate. The Administration would also examine the need to amend the Buildings Ordinance (Cap. 123) regarding the use of more environmental practices in building works. The Chairman drew members' attention to an explanatory note tabled at the meeting from REDA explaining its position on the matter.

(*Post-meeting note*: The explanatory note was circulated to members vide LC Paper No. CB(1) 2103/01-02(01).)

24. While acknowledging that there was general support for the principles of the Scheme, Mr Abraham SHEK questioned the basis upon which the landfill charge of $125 per tonne was arrived at. He pointed out that the average cost of about $1,500 per vehicle was rather high, particularly amid the present economic situation. The Assistant Director of Environmental Protection (Waste Facilities) (ADEF(WF)) explained that the landfill charge of $125 per tonne was set to recoup the full capital ($56) and recurrent ($69) costs of the three existing landfills. At members' request, the Administration undertook to provide information on the costs of landfills.

25. On ***charging arrangement***, Ms Miriam LAU urged the Administration to re-consider the proposal of extending the direct settlement system to small waste producers such that they could dispose of the renovation waste and effect payment through property management companies and contractors registered under the Scheme. In this way, waste haulers would not have to worry about cash flow and bad debt problems as they would only transport and dispose of the waste at landfills upon receipt of the necessary chits. This would also dispense with the need for setting up a complicated account billing system for waste haulers. DSEF(B) explained that unlike C&D waste generated from construction sites which could be effectively monitored, it was difficult to monitor C&D waste arising from ad hoc renovation works given the large number of waste producers and contractors involved, which also explained why it was not possible to extend the direct settlement system to cover these waste producers. On the other hand, the number of waste haulers in Hong Kong was only limited to around two to three thousand. He added that waste haulers were also users of landfills and therefore did have a responsibility to handle landfill charges.

26. Mr HO Kwok-sun/Hong Kong, KLN & NT Refuse Collection Vehicle Owners Union Limited said that waste haulers were strongly opposed to the proposed charging arrangement. He pointed out that unlike most overseas countries where the waste collection trade was dominated by large corporations which had direct accounts with the government, the situation in Hong Kong was very much different in that some of the waste was being collected and disposed of in landfills by individual waste haulers. Instead of imposing an account billing system for waste haulers, consideration should

be given to requiring property management companies to register under the direct settlement system, which was much easier to administer given the limited number of only a few hundred property management companies in Hong Kong. As property management companies were well aware of the renovation works within their buildings, Mr WONG Yung-kan agreed that it would not be difficult for them to collect the landfill charges from the waste producers concerned.

27. Ms Emily LAU said that there should not be further delay to the implementation of the Scheme. Noting from HKAPMC's submission that property management companies were willing to collect the charges for removal of renovation waste upon intake of new residential estates, she asked if they would agree to take a step further to collect landfill charges from ad hoc renovation works and pay the waste haulers direct for disposal of waste at landfills. Mr Raymond CHAN/HKAPMC said that while it was a common practice for property management companies to secure a deposit from occupiers of newly completed residential buildings for the removal of renovation waste, they would have difficulties in collecting landfill charges from ad hoc renovation works, which should more appropriately be included in the renovation costs to be settled by the contractors undertaking the works. As property management companies were not waste producers, he failed to see why they should become part of a complicated account billing system involving payment by chits/vouchers when landfill charges could be settled in a much simpler manner.

28. Mr LAW Chi-kwong said that Members of the Democratic Party supported the early implementation of the Scheme and the extension of the direct settlement system to other stakeholders, including property management companies and contractors of ad hoc renovation works. The problem of locating and setting up accounts for the large number of small waste producers could be resolved using their Business Registration Certificates. For further improvements in the longer term, consideration could be given to allowing on-line registration and use of chits or vouchers for payment of landfill charges via banks. Expressing similar view, Ms Cyd HO said that payment for landfill charges could be effected at automated teller machines similar to the existing arrangement for payment of utility charges. In this way, small waste producers could simply purchase the vouchers and give these to waste haulers for disposal of waste at landfills. Ms Miriam LAU echoed that the proposed extension of the direct settlement system to all waste producers was worth considering as this would in effect hold the polluters responsible for waste generation. Besides, waste haulers had indicated that they were now prepared to accept the chit system. DSEF(B) said that measures to streamline the charging arrangement would be considered in the light of feedback from users after the Scheme came in operation for a certain period of time.

29. Noting that payment of landfill charges could be suspended if waste haulers were unable to recover landfill charges from construction contractors, Ms Audrey EU expressed reservations at the proposed arrangement as this was against the user-pays principle. Ms Miriam LAU also expressed concern that the proposal would be difficult to administer and open to abuse. DSEF(B) said that the proposed suspension was one of the means to alleviate waste haulers' concern about cash flow and bad debt problems. While details of implementation had yet to be worked out, measures would be taken to prevent possible abuse. The Principal Assistant Secretary for the

Environment and Food (B2) (PAS/EF(B2)) added that the proposal was put forward by members at the last meeting on 27 May 2002 during which the Administration had agreed to consider the proposal despite the administrative difficulties associated with it. She emphasized that suspension of payment would have to be substantiated by supporting evidence such as a claim lodged at the Small Claims Tribunal.

30. Ms Audrey EU asked if the implementation of the Scheme would involve legislative changes and if so, whether waste producers of ad hoc renovation works would be penalized if their contractors failed to settle the landfill charges. DSEF(B) affirmed that legislative amendments would be required. However, the details had to be worked out with the Department of Justice after details of implementation of the Scheme were agreed by members. PAS/EF(B2) assured members that small waste producers would not be held accountable if they had paid landfill charges to waste haulers. Fly-tippers would be penalized if they were caught disposing of their waste illegally.

31. Mr Abraham SHEK remarked that the Administration should resolve any discrepancy with the affected trades before presenting the Scheme to members. DSEF(B) said that the Administration had made every effort to address the concerns of the affected trades. Waste haulers were nonetheless adamant that they should not be involved in the collection of landfill charges, which in their view was the responsibility of waste producers and property management companies.

32. Ms Emily LAU reiterated the urgent need for the Scheme which was meant to reduce waste and to extend the life span of landfills. The Public Accounts Committee was also very concerned about the delay in the implementation of the Scheme. She cautioned that if all stakeholders were reluctant to get involved in the collection of landfill charges, there would be no alternative but to adopt the "gate fee" system. Mr Daniel CHENG/HKWMA said that as a member of the public, he was concerned about the high administrative costs incurred from a complicated accounting system involving large numbers of stakeholders. He considered that the Administration should further look into the applicability of the much simpler "gate fee" system being adopted by many overseas countries. Given the differences in opinion among the affected trades, Ir Otto POON/WRC said that it would be for LegCo Members to decide on the way forward.

33. The Chairman said that LegCo Members, including Members of the Democratic Alliance for the Betterment of Hong Kong, had all along been supportive of the Scheme. It was also evident from the views expressed at the meeting that there was general support for the principles of the Scheme despite the discrepancies on how the Scheme should be implemented. She hoped that the Administration would take into account the views put forward by the trades in working out the implementation details for the Scheme. DSEF(B) thanked members and deputations for their views. While agreeing to consider the various proposals being put forward, he stressed the need to ascertain their practicability.

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Meeting on 28 April 2003

IV. Detailed proposals for the Landfill Charging Scheme
(LC Paper No. CB(1) 1202/02-03(04) — Updated background brief on the Landfill Charging Scheme
LC Paper No. CB(1) 1515/02-03(03) — Paper provided by the Administration)

6. Before commencing discussion, the Chairman said that she had been advised by the Administration that it had no intention to introduce the proposed Landfill Charging Scheme (LCS) at the present stage when the community was devoted to the fight against atypical pneumonia. Besides, it would take time to complete the consultation and legislative processes before the implementation of LCS.

Consultation with the trades

7. Referring to the previous discussion on LCS at the Panel meetings on 25 February, 27 May and 24 June 2002, Ms Miriam LAU reiterated that waste haulers were not opposed to LCS but were concerned about the cash flow problem arising from the proposed charging arrangement. In this connection, the Administration had been urged to finalize an early agreement with the trade associations on the proposed charging arrangement so that LCS could be put in place as soon as possible. Noting that the paper for the current meeting contained nothing new, she enquired about the progress of negotiation between the Administration and the waste hauler associations since the last meeting on 24 June 2002 which was more than nine months ago. While supporting the implementation of the long-awaited LCS, Ms Emily LAU also considered it necessary for the Administration to include in its paper information on the latest position and the efforts being made to address the waste haulers' concerns despite that the implementation of LCS should not be further delayed on account of their objection.

8. The Permanent Secretary for the Environment, Transport and Works (Environment and Transport) (PS/ETW(ET)) acknowledged that the successful implementation of LCS would hinge on the cooperation of the trades. As such, the Administration had all along been maintaining close liaison with the trades with a view to working out an acceptable charging arrangement and resolving their difficulties in the implementation of LCS. She pointed out that the paper for the current meeting contained two new proposals viz. the provision of two sorting facilities and the introduction of sorting and public fill charges. The Administration's plan was to first solicit members' view on these proposals, in particular the provision of sorting facilities, before consulting the trades. Upon completion of the consultation exercise, a comprehensive report setting out the details of consultation and the way forward would be provided to members. Ms Emily LAU remained of the view that the outcome of the last consultation exercise should have been included in the information paper. To facilitate the legislative process, she urged the Administration to set out the full results of the next round of consultation and the measures to address the trades' concerns in future papers.

9. The Chairman remarked that she had received some complaints from the trades that they had not been further consulted on LCS. The Assistant Director of Environmental Protection (Waste Facilities) (ADEP(WF)) affirmed that the Administration held a meeting with the trades on 3 July 2002 regarding details of LCS. It was pointed out that the first phase of LCS would only target at construction and demolition (C&D) waste and would not apply to commercial and industrial waste. The proposed arrangement of providing a credit period should alleviate possible cashflow problems which waste haulers might encounter and allow them more time to collect the charge from waste producers. On their counter-proposal of extending direct settlement to property management companies, ADEP(WF) pointed out that while property management companies were welcome to open accounts for direct settlement of landfill charges, they could not be legally required to do so. The Administration also noted that waste haulers had expressed reservations about payment using ATM and/or internet and reiterated their concerns about cashflow problems. In this connection, a liaison group comprising representatives from the Government, construction associations and waste haulers would be set up to sort out the operational issues prior to the implementation of LCS.

10. Ms Miriam LAU however noted that at the meeting held in July 2002, the Administration had only explained to waste haulers why their counter-proposal was not feasible without offering any practical solutions on how the operational difficulties associated with the implementation of LCS could be resolved. In response, the Principal Assistant Secretary for the Environment, Transport and Works (Environment and Transport)E2 (PAS/ETW(ET)E2) said that the Administration had tried to address the concern of waste haulers by setting up a direct settlement system for major waste producers. As it would be extremely difficult to locate the waste producers of small ad hoc renovation works and extend the direct settlement to them, the Administration had no choice but to charge the waste haulers when they delivered construction waste to landfills – a practice that was adopted in most economies with a landfill charging system. The Secretary for the Environment, Transport and Works (SETW) said that the trades should be able to overcome the difficulties if they were committed to do so as in the case of the disposal of asbestos. Concerted efforts were required to achieve the common goal of environmental protection.

Proposed supporting measures

11. In order to reduce the amount of waste disposed of at landfills, PS/ETW(ET) said that the Administration planned to make available two sorting facilities to assist the construction industry, particularly those waste producers who could not carry out on-site sorting due to physical constraints of the sites, to separate the inert portion from the non-inert portion of mixed construction waste. These sorting facilities would receive mixed construction waste with more than 50% inert content. The proposed sorting facilities would not only reduce the amount of waste disposed at landfills but also reduce the landfill charge payable by waste producers. Expressions of interest (EoI) in the operation and management of these sorting facilities had been invited.

Sorting charge

12. To allow for greater flexibility, Dr LAW Chi-kwong considered it more appropriate to leave it for the contractors to decide on the fee levels for the sorting facilities. PS/ETW(ET) said that one of the reasons for inviting EoI at an early stage was to obtain useful input from the private sector on how best the sorting facilities could be operated. The Administration had an open mind on the modus operandi of the facilities and counter-proposals were welcome. PAS/ETW(ET)E2 added that the proposed sorting charge of $100 per tonne was only an estimate to illustrate that it should be lower than the landfill charge to provide a financial incentive for waste producers/haulers to use the facilities on the one hand and not too low to prevent abuse by users on the other. However, consideration would be given to lowering the charge if the operating cost of the facilities was lower than the current estimate.

13. Noting that the waste acceptance criteria for landfills, sorting facilities and public fill reception facilities were to be determined by site staff based on visual inspection, Ms Cyd HO was concerned this might give rise to disputes between waste haulers and site staff. PS/ETW(ET) advised that as the three different types of facilities were to receive construction waste with different inert content, the site staff would have to inspect the vehicles arriving at these facilities and determine if they were carrying the appropriate waste for the facilities in question. Given the large number of waste loads, it was not practicable in terms of time, space, logistical and cost requirements to carry out detailed inspection and weighing of the detailed content of each vehicle at the gate of the facilities. Therefore, site staff would be empowered to make an immediate judgement based on visual inspection and turn away vehicles carrying inappropriate waste. Ms HO emphasized the need for further consultation with the trade to resolve possible problems arising from disputes in the determination of the inert content of the waste load. PS/ETW(ET) envisaged that these problems would diminish with time when the site staff gained more experience in the estimation of the inert content of the waste load. In inviting EoI for the sorting facilities, the Administration would take into account the relevant experience of prospective operators in waste sorting which would be useful in the future operation of the facilities.

14. The Chairman also cautioned about the possible disputes between waste producers and waste haulers over the cost for disposal of construction waste if the determination of inert content of waste load was based on visual inspection. There might be circumstances that different waste haulers would have different charges for the same waste load, thereby leading to contention within the trades over the pricing of waste disposal. Ms Miriam LAU echoed that the lack of scientific method by which waste haulers could decide on the inert content of the waste load would cause confusion and contention within the trades. She considered it necessary for the Administration to rethink about the entire charging mechanism.

15. In reply, SETW said that apart from visual inspection, the weight and density of the waste load were also useful indicators of its inert content. PAS/ETW(ET)E2 added that since the weight of inert materials were almost twice as that of non-inert waste, the weight of the wasteload would show the likely inert content therein. As

most of the useful materials like metals and wood should have been sorted out for recycling, the waste load would only consist of waste and inert materials, including earth and rocks, and the waste haulers would see the content of each wasteload when the waste were loaded onto the tracks. . Waste loads comprising a low percentage of inert content would not be accepted at the sorting facilities and would be directed to landfills as it would not be cost effective to carry out sorting. A note could be issued by the sorting facilities to waste haulers for production to waste producers as proof that their waste loads were not eligible for sorting. This would avoid possible disputes over the pricing of waste disposal. As for waste arising from renovation works, PAS/ETW(ET)E2 said that they would unlikely have a high inert content and thus would not be necessary for them to go through the sorting process.

Public fill charge

16. As regards the proposed charge of $27 per tonne for public fill reception facilities, PS/ETW(ET) said that this was imposed in line with the polluter pays principle. It would not only recover the operating charges of the public fill reception facilities but also encourage the industry to adopt means to reduce the amount of inert public fill. She also affirmed in response to the Chairman that the charging arrangements for sorting and public fill charges would follow that for landfill charge.

Landfill charge

17. Mr LAU Ping-cheung asked if the high landfill charge of $125 per tonne was attributed to the high administrative cost charged by the Government. PS/ETW(ET) explained that the proposed landfill charge represented full recovery of the capital ($56 per tonne) and recurrent ($69 per tonne) costs of the three existing landfills, the management of which had been contracted out to the private sector. Of the recurrent cost of $69 per tonne, only $9 were the administrative costs charged by the Government.

18. Noting that the demand for payment of landfill charges would be suspended if waste haulers had concrete evidence showing that they failed to collect the charges from the waste producers, Ms Miriam LAU enquired about the type of evidence which should be submitted and the consequence of suspended payment. PS/ETW(ET) said that waste haulers who wished to apply for suspension of payment would have to produce proof that they had lodged their claims with the Small Claims Tribunal (SCT). Payment of the landfill charges would be suspended pending the outcome of the decision of SCT. Ms Miriam LAU found the proposed arrangement unfair to waste haulers who had little bargaining power. She pointed out that as waste haulers were remunerated on a waste load basis, the landfill charges in addition to the waste collection charges which they had to bear upfront would likely give rise to cashflow problems. Besides, they might not have the time and resources to lodge their claims with SCT. The proposed arrangement was a retrogression from the earlier proposal where only statutory declarations from waste haulers were required as evidence for suspension of payment of landfill charges. Ms Emily LAU echoed that the lodging of claims to SCT would create undue hardship to waste haulers.

19. Given the small difference of $25 between sorting and landfill charges, the Chairman expressed concern that this might not provide the necessary incentive for waste producers to use the sorting facilities, particularly those whose construction sites were far away from these facilities. She also enquired if the proceeds from the sale of recycled materials after sorting should be kept by the waste collectors or returned to the Government. SETW advised that credit items such as metal works were often sold to recyclers at an early stage and thus would unlikely form part of the waste load going to the sorting facilities where the inert content would be taken out for recycling or reuse.

20. On recycling, Ir Dr Raymond HO queried the accuracy of the high reuse rate of 80% for construction and demolition (C&D) materials. PAS/ETW(ET)E2 said that the Administration was able to maintain a 80% reuse rate for C&D materials in previous years because there was sufficient number of reclamation projects to absorb the inert C&D materials. With the decrease in the number and scale of reclamation projects, the Administration had to set up two fill banks to stockpile inert public fill for future use when reclamation projects were available. As regards the two proposed sorting facilities to be set up in Tuen Mun and Tseung Kwan O, it was estimated that they could together handle about 2 500 tonnes of mixed construction waste each day. After sorting, the non-inert waste would be disposed of at the landfills.

Fly-tipping

21. As fly-tipping was rampant in many areas in Hong Kong such as Kam Ping Street and Tin Hau Temple Road, the Chairman considered that measures, including an increase in penalty, should be put in place as deterrent. PS/ETW(ET) assured members that the Administration would step up both publicity and enforcement against fly-tipping at those environmental blackspots, including the streets referred to by the Chairman. On the proposal to strengthen legislative measures against fly-tipping, PS/ETW(ET) said that the Department of Justice had advised that the proposed measures were not consistent with the Bill of Rights and were disproportionate to the severity of the offence. The Chairman opined that the Administration should review and simplify the prosecuting procedures for fly-tipping which was expected to increase after the implementation of LCS.

Way forward

22. The Chairman remarked that members supported LCS in principle and agreed that this should be put in place as soon as possible. Dr LAW Chi-kwong said that Members of the Democratic Party had all along been supporting the implementation of LCS. It was regretted that the Scheme was repeatedly delayed as a result of the failure to reach an agreement with the trades on the charging arrangement. He also agreed that the drafting of the legislation on LCS should proceed in parallel with the next round of consultation with the trades on the charging arrangement and measures to allay their concerns. Ms Miriam LAU reiterated the need for the Administration to further consult the trades on the charging arrangement, including guidelines on the collection of landfill, sorting and public fill charges. Her views were shared by Ms Emily LAU who opined that waste haulers should be given clear instructions on

where to dispose of their waste loads. SETW assured members that the Administration would further consult the trades and would endeavour to resolve the operational difficulties encountered by waste haulers.

23. Ms Cyd HO enquired about the legislative timetable for LCS. PS/ETW(ET) said that the drafting of the legislation had commenced and hopefully it could be introduced into the Legislature within this year for implementation in 2004.

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Meeting on 24 November 2003

IV. Construction Waste Disposal Charging Scheme

(LC Paper No. CB(1) 385/03-04(03) — Updated background brief prepared by the Legislative Council Secretariat

LC Paper No. CB(1) 385/03-04(04) — Paper provided by the Administration)

5. The Deputy Secretary for the Environment, Transport and Works (Environment and Transport) E1 (DSETW(ET)E1) gave a power-point presentation on the proposals pertaining to the Waste Disposal (Amendment) (No.2) Bill 2003 (the Bill) which sought to effect the Construction Waste Disposal Charging Scheme (the Scheme).

6. Declaring interest as the Vice Chairman of the Chinese General Chamber of Commerce (CGCC), Mr Henry WU queried why CGCC was not included in the list of consultees for the proposed Scheme. He pointed out that, like the Hong Kong General Chamber of Commerce, CGCC had also set up an environmental concern group to monitor environmental issues. ADEP(WF) explained that as the Scheme would be targeting at construction waste rather than commercial waste, the Administration had not consulted all the trade associations. Nevertheless, she would be pleased to consult CGCC on the Scheme and include it in the list of consultees for environmental issues. Responding to Mr WU's further question, DSETW(ET)E1 confirmed that the Charging Scheme would apply to Government construction projects as well.

7. Dr LAW Chi-kwong remarked that while Members of the Democratic Party supported the Bill in principle, detailed proposals had yet to be examined in greater detail by the Bills Committee to be set up after the Bill was introduced into the Legislative Council (LegCo). Meanwhile, efforts should be made to address concerns raised by the trades, particularly waste haulers who had expressed strong reservations on charging arrangement. He then asked if the Administration had considered the waste haulers associations' proposal of entrusting property management companies, particularly those large residential developments, to collect the fee for disposal of construction waste generated within the developments. DSETW(ET)E1 replied that

the Administration had carefully studied the proposal and found it not practicable since property management companies had no legal right to check whether renovation works had taken place in residents' premises. To allay waste haulers' concern about cash flow problems, arrangement had been made to bill them monthly on an accrual basis with a credit period of 30 days. Payment of the charges would be suspended if waste haulers produced evidence that they were not able to collect the charges from the waste producers. The Assistant Director of Environmental Protection (Waste Facilities) (ADEP(WF)) added that the proposed charging arrangement was discussed at the meeting with the Hong Kong Association of Property Management Companies Limited (HKAPMC) and waste haulers associations on 15 September 2003. HKAPMC pointed out that while it was not uncommon for property management companies to provide services for disposal of construction waste during intake of new developments when most residents would require renovation works, it would be difficult for them to provide such services on an ongoing basis. HKAPMC reiterated that they did not have any legal right to manage private activities such as renovation in individual units. Besides, it was not fair to use the management fees collected from all residents to cover the administrative expenses arising from handling construction waste generated by individual renovation projects. ADEP(WF) supplemented that while property management companies were welcomed to set up billing accounts for direct settlement, the Administration did not consider it appropriate to impose statutory obligations on these companies which have no direct involvement with either the generation of waste or the delivery of waste to waste facilities.

8. Dr LAW asked if consideration could be given to allowing construction or renovation contractors to set up billing accounts so that they could be able to settle the charges direct without involving waste haulers. ADEP(WF) said that it was a mandatory requirement for contractors with contracts costing over $1 million to set up billing accounts to pay charges direct. However, the Administration would welcome any individuals or companies, including renovation contractors, to set up billing accounts for direct settlement. Mr LEE Cheuk-yan then enquired about the payment methods under the direct settlement system. ADEP(WF) said that while payment by electronic means would be preferable, details of the payment system had yet to be worked out. It was intended that account holders would be given a choice in the form of payment.

9. While supporting the early implementation of the Scheme, the Chairman agreed that efforts be made to address concerns over fee arrangement. She asked if consideration had been given to the use of a chit system in lieu of cash for payment of waste disposal. DSETW(ET)E1 said that as waste haulers were concerned about cash flow problems rather than the payment method, the Administration had proposed to introduce a monthly billing system to address their concern. ADEP(WF) added that the use of a chit system was discussed again at the meeting with waste haulers associations on 14 November 2003. The associations had maintained their concern that waste haulers would have to bear the payment upfront under the chit system. The proposed monthly billing system where invoice would be issued at the end of a month would allow waste haulers a credit period of some 30 to 60 days to recover the charges from waste producers. This would help ease the waste haulers' concern about cash flow problems.

10. Mr LEE Cheuk-yan said that as a matter of policy, he failed to see why waste haulers should bear the responsibility for payment of waste disposal charges while property management companies and renovation contractors could be exempted. Given that waste haulers were not waste producers but involved in the delivery of waste, Ms Miriam LAU also considered it unfair to hold waste haulers responsible for payment of waste disposal charges, which in her view was at variance with the "user-pays principle". DSETW(ET)E1 said that as waste haulers earned their living by collecting and delivering waste to the waste facilities, they were users and involved in the waste disposal process. To allay waste haulers' concern, the Administration, instead of simply using the "gate fee" system commonly adopted in many overseas countries, had developed a complicated and comprehensive charging scheme, under which major construction waste producers, who were responsible for 70% to 80% of construction waste, would be mandated to pay their charges direct to Government. Charges for the remaining 20% to 30% wastes arising from ad hoc renovation works would have to be collected through waste haulers. Mr LEE however cautioned that conflict might arise if the Administration was not able to reach an agreement with the waste haulers associations over the charging arrangement. He enquired if further talks would be held with the associations about the way forward. DSETW(ET)E1 said that the Administration had been discussing the charging arrangements with the waste haulers associations over the years and would continue such discussions with a view to soliciting their support for the Scheme. It was hoped that a consensus could be reached on the use of statutory declaration as a form of proof for suspension of payment in the event that waste haulers failed to recover the charges from waste producers.

11. While supporting the Scheme which had already been implemented in many overseas countries, Ms Emily LAU noted that waste haulers associations had dissenting views on the use of a statutory declaration. She enquired how the Administration would deal with the bad debt problems faced by waste haulers. Sharing similar concern, Ms Miriam LAU pointed out that queries on how statutory declaration should be made and whether waste haulers would still have to settle the charges when they failed to recover these from waste producers would need to be addressed by the Administration before implementing the Scheme. DSETW(ET)E1 noted that waste haulers were most concerned about cash flow and bad debt problems. To this end, the Administration had agreed to accept claims lodged against waste producers at the Small Claims Tribunal as a form of proof for suspension of payment. It also had an open mind on the use of statutory declaration as another form of proof. While one waste haulers' association supported this arrangement, others did not wish to state their position as a matter of principle since they did not consider it appropriate to hold them responsible for collecting the charges under any circumstances. The Administration would continue its dialogue with the waste haulers associations. Consideration was also being given to setting up a tripartite working group with representatives from the construction industry/waste haulers, waste facility operators and government departments concerned to resolve possible teething problems prior to the implementation of the Scheme. Dr LAW Chi-kwong supported the establishment of the tripartite group, adding that the group should serve as a formal channel through which views from stakeholders on the Scheme could be collated and adequately

addressed.

12. Mr Henry WU pointed out that the construction industry was concerned about the high level of waste disposal charges of $125 per tonne at landfills, $100 per tonne at sorting facilities and $27 per tonne at public fill reception facilities. Noting that the charges were set to recover in full the capital and recurrent costs of these facilities, Mr WU enquired about the basis upon which the capital and recurrent costs was arrived at and whether the charges would be suitably adjusted after full recovery of the capital cost. To facilitate better understanding, the Administration was also requested to provide information on the capacity of various reception facilities and how this compared with the amount of wastes being handled now. DSETW(ET)E1 advised that the capital portion of the landfill charge was calculated by the actual capital investment averaging over the total capacity of the landfills. The recurrent portion was mainly based on the actual operating cost paid to the landfill contractors under the contracts, which was not expected to fluctuate significantly. As for public fill reception facilities, the charge was mainly based on the operating cost as the capital cost was negligible. The Civil Engineer/Port Works, Civil Engineering Department supplemented that the public fill reception facilities were expected to handle 12 million tonnes of waste per year while the sorting facilities were expected to handle 740 000 tonnes of waste per year.

13. On the problem of illegal disposal of waste, Dr LAW Chi-kwong said that the Bills Committee set up to scrutinize the Bill might need to look into the implications of illegal disposal of waste in private land as this might involve a change of land use under the Town Planning Ordinance (Cap.131). Noting that illegal disposal of waste was not a criminal offence at present, Dr LAW enquired about the legal basis for the proposed issuance of warrants for the Director of Environmental Protection to enter domestic premises and private land for dwelling purposes to remove waste. The Administration was also requested to provide past cases where warrants were issued in relation to non-criminal offences. Meanwhile, he would raise a LegCo question on the problem of illegal disposal of waste at the forthcoming Council meeting.

14. In concluding, the Chairman said that while members supported the principle of the Bill, the Administration had to further consult the stakeholders with a view to reaching a consensus on issues such as charging arrangement. Details of the Bill would have to be examined in detail by a Bills Committee to be set up when the Bill was introduced into LegCo.

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Chapter 5

Management of construction and demolition materials

Part I: Introduction

Construction and demolition (C&D) materials are a mixture of inert materials and wastes arising from construction and demolition activities. It is the Government's policy to maximise the use of inert C&D materials in public filling areas for reclamation purposes so as to conserve the valuable landfill space. In their Report No. 28 of June 1997, the Committee recommended that the Administration should take measures to identify more outlets to meet both the current and future public filling needs. Although the Government had increased the rate of reuse of C&D materials in public filling areas from 35% in 1994 to 83% in 2001, it assessed that the demand for public filling facilities would exceed the supply from mid-2002 onwards. Against this background, Audit carried out a further review on the management of C&D materials to see what improvements could be made.

2. The Committee held two public hearings on 9 and 17 May 2002 to take evidence on the issues examined in the Audit Report.

Part II: Evidence taken at the public hearing on 9 May 2002

Problems encountered in using public fill in the Penny's Bay Stage 1 Reclamation Contract (PBR1 Contract)

3. The Committee understood from paragraph 2.1 of the Audit Report that the success of the present C&D materials management strategy depended very much on the adequate provision of public filling areas. However, Audit revealed that the opportunity of using public fill had been lost in the Penny's Bay Reclamation project. According to paragraph 2.25, the Civil Engineering Department (CED) planned to use the Tseung Kwan O Contract (TKO Contract) to supply 3.6 million tonnes of sorted public fill for use in the PBR1 Contract from mid-2001 to mid-2002. The planned arrangement involved the formation of Area W30 in the TKO Contract site by 1 July 2001 so that the PBR1 Contractor could use it to sort and transport the public fill by sea. However, due to the collapse of the newly constructed seawall on 3 July 2001, the planned delivery of 3.6 million tonnes of public fill to the PBR1 Contract could not be made. The Committee further noted from paragraph 2.26 that in order not to delay the PBR1 Contract, the CED was left with no choice but to permit the importation of 3.6 million tonnes of marine sand to fill the PBR1 site.

4. Against the above background, the Committee enquired about the financial implications of the loss of opportunity to use the 3.6 million tonnes of public fill in the PBR1 Contract, in particular the costs relating to the use of marine sand and the stockpiling of the public fill.

5. **Dr LAU Ching-kwong, Director of Civil Engineering** and **Mr CHING Kam-cheong, Assistant Director (Civil)/Port**, replied that:

- having considered the feasibility of using more public fill in the Penny's Bay Stage 2 Reclamation (PBR2) to make up for the lost capacity in the PBR1 Contract, the CED had changed the design of the PBR2 to increase the public fill intake by 3.6 million tonnes. The public fill in question being stockpiled in TKO would be sorted and transported to the PBR2 site. If the public fill had been used in the PBR1 Contract, the same procedure would have been adopted. Hence the CED would not incur additional cost for stockpiling and sorting the public fill for use in the PBR2. The public fill would not have to be disposed of at landfills;

- regarding the marine sand to be used in the PBR1 Contract, the CED had sourced it from Neilingding Island in Zhuhai of the Mainland. It would be sprayed on the PBR1 site. The total cost for using marine sand in the PBR1 Contract was $39.3 million compared to the total cost of $83.6 million for using 3.6 million tonnes of public fill according to the original design of the PBR1. In other words, $44.3 million would be saved; and

- although it would have been more costly to use public fill according to the original design of the PBR1 than to use marine sand, it was considered worthwhile because of the need to conserve the scarce landfill capacity.

6. To enhance their understanding of the planned usage vis-à-vis the actual usage in respect of marine sand and public fill in the PBR1 and the PBR2, the Committee requested for:

- information on the amounts of marine sand and public fill for use in the PBR1 according to the original design and the total amount of marine sand that the contractor had been eventually allowed to use to fill the PBR1 site; and

- a comparison between the original design and the revised design regarding the amounts of marine sand and public fill for use in the PBR2.

7. In response, the **Director of Civil Engineering** provided the following information vide his letter of 15 May 2002, in *Appendix 29*:

PBR1

Materials	Planned usage	Actual usage
Marine sand	108 million tonnes	124 million tonnes*
Public fill	3.6 million tonnes	Nil

* Owing to unforeseen seabed conditions, during the course of reclamation the contractor had deepened the dredged level in order to arrive at an acceptable firm ground. Consequently, more sand had been used both in replacing the planned public fill and in forming the reclamation.

PBR2

Materials	Planned usage	Revised planned usage
Marine sand	7.2 million tonnes	7.2 million tonnes
Public fill	19.8 million tonnes	23.4 million tonnes

8. In response to the Committee's question about the details and financial implications of the design changes in the PBR2, the **Director of Civil Engineering** stated in the same letter that the changes in the design would increase the public fill intake by 3.6 million tonnes. The changes included advancing the filling of a temporary channel and changing the top two metres of the reclamation area to selected public fill. The total estimated cost of the design changes was about $52 million.

9. The Committee understood that the 3.6 million tonnes of public fill was being stockpiled in TKO Area 137 and wondered whether the site concerned could have been used for other revenue-generating purposes if it was not used for stockpiling the public fill. The **Assistant Director (Civil)/Port** replied that reclamation works were in progress at the site, which currently was only used for temporary storage. The CED chose this site due to the availability of a stockpiling and sorting facility there.

10. In the light of the above, the Committee pointed out that the Administration might incur an opportunity cost for stockpiling the 3.6 million tonnes of public fill at the site. As such, they asked the Director of Lands:

- whether the CED had been allowed to use the site under a land grant and, if so, what the duration of the grant was;

- what the use(s) of the land would be if the site could be resumed before the expiry of the grant; and

- about the opportunity cost of the land for stockpiling the public fill.

11. In his letter of 15 May 2002, in *Appendix 30*, the **Director of Lands** advised the Committee that:

- the CED was currently occupying Area 137 at TKO as a works site for the purposes of reclamation and the construction of sea walls. An application for part of the area, i.e. about 10 hectares, to be used as a stockpiling and sorting facility had been received by the District Lands Office and a land allocation, not a land grant, to the Director of Civil Engineering was being processed;

- the long-term use of Area 137 was for "Deep Water Front Industry" as designated on the relevant Outline Zoning Plan. However, it was understood that the Planning Department (Plan D) was reviewing this designation. Apart from the originally proposed long-term use, the site characteristics lent themselves to a short-term use such as the barging and storage of sand and aggregates; and

- the "opportunity cost" of the site proposed for stockpiling and sorting fill might be assumed to relate to the possible short-term use mentioned in the inset above. Having regard to recent comparable rental evidence for similar sites and adjusting for the large site area, it was considered that the rent which might be achieved would be in the region of $4 million to $5 million per annum. However, this should be regarded as a preliminary estimate only.

12. Although the 3.6 million tonnes was only being stockpiled temporarily in TKO Area 137, the Committee noted from paragraph 2.27 of the Audit Report that if a fill bank was eventually used to stockpile 3.6 million tonnes of surplus C&D materials, there would be additional cost implications of $100 million, i.e. $28 per tonne x 3.6 million tonnes. According to Note 5 of the Audit Report, depending on the location and mode of operation of the fill bank, the CED estimated that it would cost at least $28 to manage one tonne of stockpiled public fill. As such, the Committee asked about the breakdown of the cost of $28 per tonne and whether there would be other types of costs involved in handling stockpiled public fill.

13. In his letter of 15 May 2002, in *Appendix 29*, the **Director of Civil Engineering** provided the information as follows:

Activities	Unit cost
Capital cost of setting up stockpiling area	$ 1.3/tonne
Environmental mitigation measures	$ 1.3/tonne
Stockpiling of public fill delivered	$ 9.5/tonne
Removal of public fill (from stockpile to barging point on site)	$ 15.9/tonne
Total =	$ 28.0/tonne

14. Noting the circumstances surrounding the use of marine sand instead of the 3.6 million tonnes of public fill in the PBR1, the Committee questioned how the Administration could ensure the implementation of the policy of maximising public fill in government projects.

15. **Mr LEE Shing-see, Secretary for Works**[1], explained that the Administration was responsible for maximising the use of C&D materials for reclamation projects. The policy was very clear. However, consideration had to be given to such factors as fill requirements, project requirements and the construction programme in determining the public filling capacity of a works project. The government department concerned needed to discuss with the Public Fill Committee in coordinating the use of C&D materials in the light of the actual usage and project considerations.

16. In response to the Committee's enquiry about the implementation of the policy concerning the use of C&D materials, **Mrs Lily YAM KWAN Pui-ying, Secretary for the Environment and Food**[2], said that:

- in view of its policy responsibility for the management of C&D materials, the Environment and Food Bureau (EFB) did hope that the use of such materials could be maximised in every works project regardless of whether it was for reclamation or other purposes;

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1 With the implementation of the Accountability System for Principal Officials, the major statutory functions exercisable by the Secretary for Works have been transferred to the new Secretary for the Environment, Transport and Works with effect from 1 July 2002.

2 With the implementation of the Accountability System for Principal Officials, the statutory functions relating to the environment exercisable by the Secretary for the Environment and Food have been transferred to the new Secretary for the Environment, Transport and Works with effect from 1 July 2002.

- as pointed out by the Secretary for Works, the usage of such materials depended on the requirements of the project. As the policy bureau in this regard, the EFB had also encountered difficulties. First, only 25% by weight at most of the C&D materials could be recycled for use. In view of the composition of the C&D materials generated in the past few years, only about 60% could be used for reclamation purposes. Second, the number of reclamation projects had decreased in recent years due to environmental concerns, such as the protection of the harbour;

- the generation of C&D materials did not coincide with the availability of new reclamation projects. As there would be a serious shortage of public filling areas from 2002 to 2005, the Administration planned to establish temporary fill banks; and

- the EFB, the CED and the Environmental Protection Department (EPD) frequently held liaison meetings to discuss measures to maximise the use of public fill. Since the end of May 2002, the liaison meetings would be chaired by a Deputy Secretary for the Environment and Food so as to coordinate the work more effectively.

Need to implement the landfill charging scheme

17. Audit observed that the Legislative Council (LegCo) had passed a resolution in June 1995 to amend the Waste Disposal (Charges for Waste Disposal) Regulation to allow the private-sector waste collectors to pay the landfill charges on either a per-tonne or a per-vehicle-load basis. Despite the amendment, the private-sector waste collectors blockaded the landfill sites in protest. The Administration subsequently agreed that the implementation of the charging scheme would be deferred until there was agreement on the arrangements for charging. The Committee understood that the landfill charging scheme had still not been implemented since the private-sector waste collectors continued to raise strong objections. As stated in paragraph 3.11 of the Audit Report, the waste collectors were concerned that they would have to pay the landfill charges in advance for some of the waste producers. Difficulties of collecting the charges would cause bad debt problems. Moreover, large transportation companies would take the opportunity to drive the small ones out of business. They also considered that under the existing poor economic conditions, the proposed charge of $125 per tonne was too high.

18. Against this background and noting that the landfills would be depleted by 2015 according to the projection in the 1998 Waste Reduction Framework Plan, the Committee queried the reasons for the slow progress in implementing the landfill charging scheme.

19. The **Secretary for the Environment and Food** explained that:

- the proposed charge of $125 per tonne was the capital and recurrent cost of landfill. Although the Administration had estimated that the full economic cost of landfill was $215 per tonne, which included the opportunity cost of the land set aside for landfill purposes, the EFB had proposed to charge $125 per tonne for the purpose of meeting the cost for handling C&D materials;

- in response to Audit's recommendation in paragraph 3.16(b), the EFB had provided in the consultation exercise the costing information on the proposed charge of $125 per tonne to the trades concerned so as to facilitate their consideration of the way forward;

- the Administration submitted to the LegCo Panel on Environmental Affairs in February 2002 a paper on the revised arrangement for landfill charging. At the request of the Panel, the Administration recently held further discussions with the relevant trades. However, they maintained their reasons for objection; and

- the Administration would submit further information on the proposed landfill charging scheme for discussion at the Panel meeting on 27 May 2002. If the Panel supported and the community agreed with the scheme, the Administration would try again to elicit acceptance by the relevant trades, such as the transportation industry and the construction industry.

20. With reference to the Administration's estimation of the full economic cost of landfill, i.e. $215 per tonne, the Committee enquired about the basis of the estimation. The **Director of Civil Engineering** provided the following information in his letter of 15 May 2002, in ***Appendix 30***:

Capital cost of landfill	= $56/tonne
Recurrent cost of landfill	= $69/tonne
Opportunity cost for land	= $90/tonne
Total	= $215/tonne

21. Referring to the Administration's undertaking in 1995 not to implement landfill charging before reaching an agreement with the waste collection trade, the Committee asked whether the Administration must seek the agreement of the private-sector waste collectors before implementing any landfill charging scheme in future.

22. The **Secretary for the Environment and Food** said that:

- she still hoped that the trades concerned would support further actions by the Administration in this matter. It was clearly stated in the Administration's undertaking in 1995 that it would defer gazetting the then landfill charging proposal until there was agreement on the arrangements for charging; and

- the Administration had revised the landfill charging proposal in the light of the demands and concerns of the relevant trades. Under the revised charging scheme, about 70% of the landfill charges would be paid directly by the major waste producers.

23. The Committee further asked whether:

- the proposed charge of $125 per tonne of public fill was reasonable; and

- the landfill charging scheme would be confined to future works contracts.

24. The **Secretary for the Environment and Food** responded that:

- the EPD had contracted out the management of landfills, and the charge was determined subsequent to the selection of the contractor through the normal tendering procedures;

- the Administration had discussed with the construction industry and made it clear that the scheme would not be applicable to works contracts they had entered into before its implementation; and

- she hoped that the Works Bureau (WB) would issue a circular within the next few months requiring the use of C&D materials in all government works projects.

25. In the light of the above reply, the Committee asked whether the WB would issue the circular as suggested by the Secretary for the Environment and Food. In his letter of 16 May 2002, in *Appendix 31*, the **Secretary for Works** informed the Committee that the WB had taken the lead to promote the use of recycled C&D materials in works projects, and had issued a circular on 27 March 2002 to facilitate works departments in using recycled aggregates in certain technically less demanding works items. In addition, the WB would set up a Working Group shortly to monitor and promote wider use of recycled aggregates in public works projects.

Part III: Evidence taken at the public hearing on 17 May 2002

Problems encountered in using public fill in the PBR1 Contract

26. The Director of Civil Engineering's letter of 15 May 2002, in *Appendix 29*, revealed that the changes in the design of the PBR2 would increase the public fill intake by 3.6 million tonnes and that the total estimated cost of the design changes was about $52 million. The Committee asked about the basis of the estimation of the $52 million.

27. The **Assistant Director (Civil)/Port** explained that:

- the design changes included advancing the filling of a temporary channel and changing the top two metres of the reclamation area to selected public fill; and

- in the case of using the public fill in the PBR1 Contract according to the original design, the cost was $83.6 million. In contrast, the cost amounted to $91.3 million, comprising $39.3 million for the use of marine sand in the PBR1 and $52 million for the changes in the design of the PBR2. Hence the cost differential was $7.7 million.

28. The Committee further enquired whether:

- the total estimated cost of $52 million for the design changes included the transportation and sorting costs of the public fill for use in the PBR2; and

- the cost differential of 7.7 million was an additional cost to be incurred.

29. The **Assistant Director (Civil)/Port** said that:

- the total estimated cost of the design changes did include the transportation and sorting costs of the public fill; and

- although an additional cost of $7.7 million would be incurred, the filling of the temporary channel would create an additional piece of land of close to one hectare.

30. The Committee further requested to have the breakdowns of:

- the total estimated cost of $83.6 million for using public fill in the PBR1; and
- the total estimated cost of $52 million arising from the changes in the design of the PBR2.

31. In response, the **Director of Civil Engineering** provided the following information vide his letter of 23 May 2002, in *Appendix 32*:

Original design	**Cost**	**Revised design and advancement of works**	**Cost**
PBR1		**PBR1**	
No Purchase of sand	Nil	Purchase of sand	$39.3 million
		PBR2	
Transportation of public fill from stockpile to sorting facility	$21 million	Transportation of public fill from stockpile to sorting facility	$18.9 million*
Sorting of public fill	$16.3 million	Sorting of public fill	$14.2 million*
Transportation from sorting facility to Penny's Bay	$20.8 million	Transportation from sorting facility to Penny's Bay	$18.9 million*
Sand drainage layer	$25.5 million	No sand drainage layer	Nil
		Sub-total	$52 million
Total	$83.6 million	Total	$91.3 million
Difference = $91.3 million - $83.6 million = $7.7 million			

* The unit rates in the revised design and advancement of works were lower than those in the original design due to the economy of scale derived from handling a total of 23.4 million tonnes of public fill in the former compared to only 3.6 million tonnes in the latter.

32. The Committee pointed out that the CED had not included in the additional cost of $7.7 million the opportunity cost of the site in TKO Area 137 proposed for stockpiling and sorting the public fill. As stated in the Director of Lands' letter of 15 May 2002, in *Appendix 30*, the rent of the site which might be achieved would be in the region of

$4 million to $5 million per annum. The Committee asked about the duration of stockpiling the 3.6 million tonnes of public fill in the site.

33. The **Director of Civil Engineering** responded that:

- works were currently in progress in the said site, and therefore could not be leased; and

- subject to the funding approval by the Finance Committee of the LegCo, the CED would invite tenders for the PBR2 Contract in the end of 2002. If the contractor could commence the project in 2003, the sorted public fill would be transported to the PBR2 site in the same year. In other words, the public fill would be stockpiled for about two years by that time.

34. It appeared to the Committee that the Director of Civil Engineering had reservations about the assessment of the land opportunity cost for stockpiling in TKO Area 137 for about two years the 3.6 million tonnes of public fill rescheduled for use in the PBR2, the Committee invited the Secretary for the Treasury[3] to comment on the issue.

35. In her letter of 25 May 2002, in *Appendix 33*, the **Secretary for the Treasury** advised that:

- TKO Area 137 was planned to be used as a temporary fill bank. It currently served as a works area for the CED Contract No. CV/2000/09 – Infrastructure for Penny's Bay Development Contract 1, and a works site for the Territory Development Department Contract No. CV/97/01 – TKO Area 137 Reclamation Stage 2;

- the works areas and works sites under the two contracts were planned to be progressively handed over, between October 2002 and mid-2004, to the contractor for a separate contract to enable TKO Area 137 to be used as a temporary fill bank. Tenders for the fill bank contract would be invited in the summer of 2002;

[3] With the implementation of the Accountability System for Principal Officials, the major statutory functions exercisable by the Secretary for the Treasury have been transferred to the new Secretary for Financial Services and the Treasury with effect from 1 July 2002.

- the area currently stockpiling the 3.6 million tonnes of public fill in question, which was about 30 hectares, would be handed over to the fill bank contractor as soon as the fill bank contract was awarded, that is, around October 2002. Thus, notwithstanding the CED's latest plan to accommodate the public fill in the PBR2 works, the handover dates for the fill bank contract were not affected;

- the Director of Civil Engineering believed that as long as the entire TKO Area 137 was being occupied continuously in the next few years for stockpiling, sorting and transporting public fill as a works area for reclamation or the fill bank, there was nowhere within the site which could be leased for revenue generation in reality;

- the Director of Lands had clarified that in assessing the notional land opportunity cost of using the site for stockpiling, sorting and so on, he had assumed that the barging and storage of sand and aggregates would be a reasonable alternative use. Upon the Director of Civil Engineering's clarification that the site concerned covered about 30 hectares rather than 10 hectares, the Director of Lands further advised that the notional rent which might be achieved would be in the region of $6 million to $7 million, rather than $4 million to $5 million, per annum; and

- the Director of Lands agreed with the Director of Civil Engineering that the possibility of securing a tenant for this very large, remote site was uncertain and the "notional" land opportunity cost must be regarded as indicative only. To claim categorically that the Government would forgo the above rental figure by using the land for stockpiling and sorting would be a somewhat specious argument.

36. On the estimation of the opportunity cost of the land set aside for landfill purposes, the Committee noted from the Director of Civil Engineering's letter of 15 May 2002, in *Appendix 29*, that the full economic cost of landfill, i.e. $215 per tonne, included an opportunity cost for land of $90 per tonne. The Committee asked how the Administration arrived at $90 per tonne, given that it could not rent out the land set aside for such purposes.

37. **Mr Robert LAW, Director of Environmental Protection**, explained that the EPD had arrived at the notional opportunity cost for the land with the assistance of the Finance Bureau (FB). The Administration had adopted the basis for the estimation that the land was agricultural in nature and it would have to pay to buy the land at its average price.

Hence the opportunity cost did not concern the alternative use of the land. Instead, it was the notional price of the land.

38. **Ms Annie CHOI, Principal Assistant Secretary for the Environment and Food**, added that the 3.6 million tonnes of public fill had never been disposed of at landfills. Rather, it had been stockpiling at a works site at TKO Area 137. Thus the opportunity cost of the land for landfill purposes did not apply to the case of stockpiling the 3.6 million tonnes of public fill.

39. On the issue of changing the design of the PBR2, the Committee noted the Assistant Director (Civil)/Port's earlier statement that although an additional cost of $7.7 million would be incurred, the filling of the temporary channel would create an additional piece of land of close to one hectare. They questioned:

- whether there was a genuine need to fill the temporary channel in the PBR2 or it was merely a means to remedy the loss of opportunity to use the 3.6 million tonnes of public fill in the PBR1 Contract; and

- what the proposed use of the land was.

40. The **Director of Civil Engineering** and the **Assistant Director (Civil)/Port** explained that:

- there had been a plan to construct an access road in the area. Although the schedule for the construction had not yet been drawn up at this stage, the project would include the filling of the temporary channel. Hence, the implementation of the filling works did not arise from the need to use the 3.6 million tonnes of public fill; and

- according to the original plan, the temporary channel would be filled by granular fill. The CED had now revised the plan to use public fill. The temporary channel had to be filled in any case before the site could be made available for development.

41. Regarding the proposed use of the additional piece of land, the **Director of Civil Engineering** stated in his letter of 27 May 2002, in ***Appendix 34***, that in accordance with the draft North-east Lantau Outline Zoning Plan, the land would be used for the construction of an access road leading to the Hong Kong Theme Park Phase 2.

42. In response to the Committee's further enquiry about the circumstances surrounding the design changes in the PBR2, the **Director of Civil Engineering** said in his letter of 23 May 2002, in *Appendix 32*, that:

- the consultant had submitted the Final Inception Report for the reclamation project in December 2001. The design concept for the reclamation was contained in the report. The CED studied the report in early 2002;

- meanwhile, the CED received the first draft of the Audit Report in January 2002. The Audit Report recommended, among other things, that the CED should find means to increase the public fill intake in the PBR2 to make up for the loss in the PBR1;

- the CED asked the consultant to review the design of the reclamation to identify more opportunities to use public fill. In mid-April 2002, having satisfied with the engineering feasibility of a revised design to replace the top two metres of general fill by public fill and a proposal to advance the works of filling a temporary drainage channel, the CED decided to adopt both changes; and

- regarding the advancement of the works, the temporary drainage channel had to be filled in any case before the site could be made available for development. The works were also within the gazette limit of the reclamation works for the Theme Park development as shown in the gazette plan.

43. At the Committee's request, the Director of Civil Engineering provided the documents relating to the design changes of the PBR2 for the examination by Audit regarding the justifications for such changes. Having had sight of the necessary documentation, the **Director of Audit** stated in his letter of 3 June 2002, in *Appendix 35*, that:

- regarding the advance filling of the temporary open channel, according to the draft North-east Lantau Outline Zoning Plan, an access road was planned to be constructed alongside the northern edge of the Stage 2 Reclamation. As pointed out by the consultant in November 2001, the temporary open channel in the original design of the Stage 2 Reclamation would eventually be filled under future infrastructure works. In Audit's view, advancing the filling of the temporary open channel had not deviated from the intention of the draft North-east Lantau Outline Zoning Plan. Moreover, the filling of the temporary open channel with public fill was consistent with the requirement

of the Environmental Impact Assessment (EIA) Report of using a total of 23.4 million tonnes of public fill in the PBR 1 and 2;

- as regards the replacement of the top two-metre layer of granular fill by public fill, according to the consultant, it was an additional measure for the Stage 2 Reclamation to use up to 23.4 million tonnes of public fill as required under the EIA Report. Moreover, the consultant considered it technically beneficial to use public fill in lieu of well-graded granular fill in the top two-metre layer. In May 2002, the CED indicated that it shared the consultant's view. The CED considered it prudent to adopt the design change for the top 2-metre layer which could make use of about 2.2 million tonnes of public fill, i.e. about 61% of the 3.6 million tonnes not used in the Stage 1 Reclamation. While the top two-metre layer would have to be removed after the settlement period in late 2008, this design change could help address the immediate shortage of public filling capacity; and

- in Audit's view, such design changes had been made in order to make beneficial use of the public fill originally intended to be placed in the PBR1. In doing so, the CED had taken into account both the EIA Report's requirement and the current problem of shortage of public filling capacity. However, as the top two-metre layer of public fill would have to be removed in late 2008, it was necessary for the CED to work out a definite disposal plan to ensure its beneficial use thereafter.

Need to follow prudent project management principles

44. According to paragraph 2.13 (a) of the Audit Report, Area W30 in TKO Area 137 public filling area, which was managed under the TKO Contract, would be handed over to the PBR1 Contractor as his works area on or before 1 July 2001. Audit observed that the CED had awarded the TKO Contract in October 1999. This contract had no provision for completing Area W30 by 1 July 2001. However, in the PBR1 Contract awarded in April 2000, the CED had committed the Government to making Area W30 available for the use of the PBR1 Contractor by 1 July 2001. Paragraphs 2.16 and 2.17 revealed that there was subsequent slippage in the progress of the TKO Contract. In order to meet the PBR1 Contract's requirement, the CED sought the Secretary for the Treasury's approval in December 2000 for a variation to the TKO Contract. In February 2001, the CED entered into a supplementary agreement with the TKO Contractor. The Committee noted from paragraph 2.21 that the Secretary for the Treasury had stated that it was not prudent to commit the TKO Contractor to delivering something for a third party, i.e. the PBR1 Contractor, without first securing the TKO Contractor's consent.

45. Against the above background, the Committee questioned whether there was project mismanagement on the part of the CED in the case of the TKO Contract. The **Director of Civil Engineering** explained that:

- after the TKO Contract works had commenced, the contractor submitted an initial construction programme to the CED. The programme indicated that the contractor would be able to complete Area W30 by 1 July 2001. The progress of the TKO Contract was still satisfactory when the CED awarded the PBR1 Contract in April 2001; and

- although the planned progress of the works was not contractually binding on the contractor, the CED did not consider it necessary to enter into a supplementary agreement and incur additional cost, having regard to the satisfactory progress of the TKO Contract. Moreover, the staff in the works site had compared the actual progress with the planned progress every month. Nevertheless, when the CED found out in September 2000 that there was slippage in the progress, it immediately took up the matter with the contractor.

46. In the light of the reply of the Director of Civil Engineering, the Committee asked whether the FB had been aware of the CED's judgement on the progress of the TKO Contract as the CED did not state this in its response in paragraph 2.20 of the Audit Report. **Miss Elizabeth TSE, Deputy Secretary for the Treasury**, said that the CED had explained to the FB its judgement on the progress of the TKO Contract. The CED did not expect that slippage would occur at a later stage.

47. The Committee further asked:

- whether the TKO Contractor's prior agreement to complete Area W30 by 1 July 2001 should be made a contractual requirement in the first place, or the CED's judgement on the progress of the TKO Contract would suffice in this case; and

- about the estimated cost for including 1 July 2001 as a milestone date in the TKO Contract.

48. The **Director of Civil Engineering** replied that with hindsight, he considered that the milestone date of 1 July 2001 should have been included in the TKO Contract. At that time, the CED had not estimated the cost in this regard.

49. To ascertain whether the CED was aware of the actual progress of the TKO Contract, the Committee enquired about the work that it had undertaken between April and September 2000 in respect of the supervision of the contract works. The **Director of Civil Engineering** informed the Committee in his letter of 24 May 2002, in ***Appendix 36***, that between April and September 2000, the progress of the works was unsatisfactory. The CED had repeatedly reminded the TKO Contractor of the slow progress and requested the contractor to take steps to catch up with the programme through regular site meetings and official correspondence. The contractor's slow progress was also recorded in the contractor's performance reports in the quarters ending May 2000 and August 2000.

50. In response to the Committee's enquiry about the financial implications of the supplementary agreement with the TKO Contractor, the **Director of Civil Engineering** stated in the same letter that the original estimated cost of the agreement was $28.16 million. Of this, a payment of 7.82 million had been made to the contractor for the part of work done for the early completion of Area W30.

51. Turning to the collapse of the vertical seawall in Area W30 of the TKO Contract, the Committee noted from paragraph 2.23 of the Audit Report that in the afternoon of 3 July 2001, a portion of the newly reclaimed land within Area W30 behind the vertical seawall sank below the sea level and a portion of the vertical seawall collapsed. After the incident, the reclamation works under the supplementary agreement with the TKO Contractor were suspended. Site investigation works were required for identifying the cause of the incident and for detailed design of the remedial works. The Committee enquired about the present position of the matter.

52. The **Director of Civil Engineering** said that the CED had commissioned Professor C F LEE of the University of Hong Kong to conduct a study on the process of and the factors leading to the collapse of the vertical seawall. The investigation report would be completed in June 2002.

53. In response to the Committee's recent request for a copy for the investigation report, the **Director of Civil Engineering** informed the Committee in his letter of 21 June 2002, in ***Appendix 37***, that the report was still under preparation.

Need to promote wider use of recycled C&D materials

54. According to paragraph 4.10 of the Audit Report, based on the CED's study, about 25% of C&D materials generated were hard materials with potential for recycling. The recycling and reuse of C&D materials would reduce the pressure on pubic filling areas and landfills. Paragraph 4.11 revealed that from mid-2002, the temporary recycling plant in Tuen Mun Area 38 reclamation was expected to produce about 354,000 tonnes of recycled aggregates annually for use of government projects. However, despite repeated appeals from the WB and the CED, the estimated total demand, i.e. 104,000 tonnes a year, for recycled aggregates by the works departments would only consume about one third of the planned output of this recycling plant. There was an urgent need for the WB and the CED to step up their efforts to promote the wider use of recycled C&D materials in government projects so as to enable all the recycled aggregates produced to be put into beneficial use.

55. The Committee fully agreed with Audit's observation that it was important for the Government to set a good example for the construction industry to follow, particularly bearing in mind that the Government intended to set up another recycling plant in Kai Tak in early 2003. The Committee asked:

- about the planned output of the temporary recycling plant in Kai Tak; and
- whether there would be sufficient demand for the recycled aggregates produced by this plant.

56. **Mr CHAN Chi-yan, Chief Engineer/Port Works**, replied that:

- in view of the planned output of the recycling plant in Tuen Mun Area 38 reclamation, the various works departments had identified as many projects as possible in which recycled aggregates could be used. The number of suitable projects had now increased from 15 to 22. As a result, the estimated total demand for recycled aggregates had increased to 900,000 tonnes for the next five years; and
- the temporary recycling plant in Kai Tak was expected to produce 700,000 tonnes of recycled aggregates annually for use of government projects. In order to include the demand of the Housing Department (HD) in the total demand for recycled aggregates by government departments, discussions with the HD were underway, with a view to identifying the works items for which recycled aggregates could be used. If the HD did not

support the use of recycled aggregates in its projects, the CED could postpone the commissioning of this plant to a later date.

57. The Committee further enquired:

- about the estimated total demand for recycled aggregates by the HD; and
- what the total number of projects would be if all government departments were required to use recycled aggregates in their projects.

58. The **Chief Engineer/Port Works** said that the HD should be able to consume 700,000 tonnes to 800,000 tonnes annually. However, this depended on whether the HD would amend the specifications for its projects. As the HD needed to take into consideration the responsibility for the strength of the aggregates to be provided by the Government, it would undertake a study on this issue. In addition, when the recycling plant at Tuen Mun Area 38 reclamation commenced operation, tests would be conducted regarding the use of recycled aggregates for higher strength concrete.

59. In response to the Committee's view that the WB should take the lead to promote the wider use of recycled aggregates in government projects, **Mr CHAN Wing-sang, Deputy Secretary for Works (Works Policy)**, informed the Committee that:

- as stated in paragraphs 4.5 and 4.6 of the Audit Report, the WB issued two Works Bureau Technical Circulars (WBTCs) in 2001, which promulgated amendments to the General Specification for Civil Engineering Works, allowing the use of recycled C&D materials;
- the WB issued another circular in late March 2002, which promulgated the particular specifications to facilitate the use of recycled aggregates in concrete production, and construction of road sub-base in Public Works Programme (PWP) projects;
- if the operation of the recycling plant in Tuen Mun was satisfactory, the WB would impose the requirement in the near future that recycled aggregates should be used in all PWP projects;
- the WB would set up a task force to monitor and promote wider use of recycled aggregates among the works departments. It hoped that these

departments could take the lead in this regard so as to set an example for the HD or private developers to follow; and

- the number of new government projects was estimated to be 70 to 80 annually. Due to the need to observe the original General Specification in the contracts of old projects, the use of recycled aggregates was not allowed in these projects.

60. **Mr WAI Chi-sing, Principal Assistant Secretary for Works (Works Policy and Safety)**, supplemented that the works departments would be required to use recycled aggregates in half of their projects commencing in the coming six to nine months. The number of such projects was in the region of 40 to 50, which would consume more than 300,000 tonnes of recycled aggregates, that is, the equivalent of the planned supply of the recycling plant in Tuen Mun.

61. On the Committee's question on whether the Government would encounter difficulties in promoting the use of recycled aggregates in private works, the **Deputy Secretary for Works (Works Policy)** and the **Principal Assistant Secretary for the Environment and Food** responded that:

- private works were outside the purview of the WB. The EFB had the policy responsibility for the management of C&D materials. Private works were undertaken in accordance with the regulations promulgated by the Buildings Department and the EFB; and

- the Administration would first require the use of recycled aggregates in government works, including the civil engineering works of the HD. The Kowloon-Canton Railway Corporation and the MTR Corporation Limited would also use such aggregates in their works. Besides, the EFB, in conjunction with the Planning and Lands Bureau, were conducting a study on the use of recycled aggregates in private works and the need to introduce legislative amendments.

62. Regarding the use of recycled aggregates in public housing projects, the Committee enquired:

- about the forum at which the issue was under discussion and when the discussion was expected to end;

- about the action plan, if any, for implementing the initiative; and

- when the Administration would report the matter to the LegCo.

63. The **Secretary for the Environment and Food** informed the Committee in her letter of 1 June 2002, in ***Appendix 38***, that:

- both the EFB and the HD were members of the Waste Reduction Task Force for the Construction Industry, which was a subcommittee of the Waste Reduction Committee and was tasked to coordinate waste reduction actions concerning the construction sector. The issue of recycled aggregates was therefore an important subject closely followed by the Task Force;

- although the HD did not come under the purview of the WB, it did participate in the WB's Standing Committee on Concrete Technology, which was an inter-departmental committee within the Government to examine technical issues relating to, among other things, the use of recycled aggregates in concrete. This arrangement would ensure that the HD was kept abreast of the relevant performance tests, as well as measures adopted by the WB and other works departments in this regard;

- since April 2001, the HD had been amending its specifications to allow the use of recycled aggregates in its earthworks, drainage and road works, as well as in both structural concrete and concrete for minor structures. An implementation plan on the use of recycled aggregates was being prepared and would be completed by July 2002. In preparing the plan, the HD would take into consideration the location of the project sites and the allowable grades of concrete;

- the HD had also participated in the trial use of recycled aggregates in paving blocks. Depending on the outcome of the trial which would be available in mid-2003, the HD would revise its specifications to use recycled aggregates for this purpose; and

- the EFB would continue to report to the LegCo Panel on Environmental Affairs issues relating to the management of C&D materials, including the use of recycled aggregates.

Need to tighten the control over the disposal of C&D materials

64. Paragraph 6.9 of the Audit Report revealed that in March 2001, the Plan D had received a complaint from the public that there was illegal filling of two fish ponds in Tin Shui Wai inside the Wetland Conservation Area. As this was in contravention of the Town Planning Ordinance (Cap. 131), the Plan D issued a Stop Notice in April 2001, requiring the pond owner to stop the unauthorised filling activities and remove the earth already dumped into the ponds. According to paragraph 6.10, the Plan D had requested the Territory Development Department (TDD) to further look into the complaint. After investigation, the TDD found that the materials used for filling the fish ponds had come from the Yuen Long Contract. As stated in paragraph 6.7, the contract was awarded by the TDD for the construction of roads, drains and a constructed wetland in Tin Shui Wai, and the contract works were designed and supervised by a consulting engineer appointed by the TDD. The Committee also noted from paragraph 6.10 that although the consulting engineer had immediately requested the contractor to cease transporting C&D materials to the ponds, about 60,000 cubic metres of inert C&D materials had already been disposed of at the ponds.

65. The Committee asked:

- whether the Administration had stepped up actions to prevent the improper disposal of C&D materials; and

- how far the consulting engineer should be held responsible for the illegal filling of the fish ponds.

66. **Mr WONG Hung-kin, Director of Territory Development**, responded that:

- the disposal of the C&D materials from the Yuen Long Contract by the contractor at the fish ponds was definitely improper. The earth dumped into the ponds had been removed. The Plan D had prosecuted the pond owners concerned for the offence;

- the TDD admitted that the consulting engineer had not specified designated public filling facilities and landfills in the tender document. The reason was due to his under-estimation of the quantity of C&D materials from the contract works; and

- after the incident, the TDD had issued warnings to the contractor and the consulting engineer and reflected the consulting engineering's performance in

his performance report. The TDD had stepped up its efforts in monitoring other contract works regarding the disposal of C&D materials.

67. In the light of the reply of the Director of Territory Development, the Committee enquired about the maximum penalty for illegal filling activities and the outcome of the prosecution of the pond owners concerned. The **Director of Planning** informed the Committee in his letter of 23 May 2002, in ***Appendix 39***, that:

- the landowners of the ponds concerned had been prosecuted under section 23(6) of the Town Planning Ordinance for failing to comply with a notice served under section 23(2) of the Ordinance. The maximum fine for the offence was $500,000 on a first conviction and $1,000,000 on each of second and subsequent convictions; and in addition, a daily fine up to $50,000 after the specified date in the notice for the first conviction; and that up to $100,000 for a second or subsequent conviction; and

- the case had been heard by the Shatin Magistracy in December 2001. The two landowners concerned pleaded guilty to the charge and were fined a total of $20,000. The ponds had subsequently been reinstated.

68. Referring to the issuance of warnings to the contractor and the consulting engineer, the Committee enquired about the impact on them. The **Director of Territory Development** said that:

- if the performance of a contractor had been recorded as unsatisfactory, it would be reflected in his score in the points system for tender evaluation. Unsatisfactory performance in such aspects as environmental protection, safety and progress of works would result in a lower score; and

- as far as the consulting engineer was concerned, the TDD had recently given him an adverse report for his performance due to the illegal filling incident and unsatisfactory performance in other facets of his work. The consulting engineer was now well aware of the need to vigorously improve his performance in various facets of his work.

69. In view of the Director of Territory Development's remarks, the Committee considered that the Government could impose more severe punishment on the contractor and the consulting engineer so as to demonstrate its determination to attach importance to the concept of environmental protection.

70. The **Deputy Secretary for Works (Works Policy)** and the **Director of Civil Engineering** responded that:

- in order to step up its efforts in monitoring the performance of consulting engineers, the Government was now conducting an appraisal every three months. If a consulting engineer received two consecutive adverse reports, he would be barred from bidding. This would be very severe punishment on the consulting engineer. In addition, the WB would issue a Consultant Performance Index, which would be taken into consideration in tender evaluation; and

- the WB would issue a circular in the near future about the evaluation of tenders, with a view to giving a weighting to the past performance of contractors in the evaluation.

71. The Committee pointed out that according to paragraph 6.12(a) of the Audit Report, the consulting engineer had not fully complied with the requirements of the relevant WBTC to incorporate a clause in the contract requiring the contractor to submit a disposal plan. The Committee questioned whether the TDD should be responsible for the omission by the consulting engineer appointed by the Department.

72. The **Director of Territory Development** explained that most of the TDD's contract works were designed and supervised by the same consulting engineer. As the works were relatively large in scale, the tender documents and the plans were voluminous. The Government had a system in place for checking such documents. A government engineer in his capacity as a project manager might have to be in charge of a couple of large projects. Hence there might be omissions. Although the TDD could not completely prevent omissions, it would strive to do its best in this regard.

73. **Conclusions and recommendations** The Committee:

- express grave concern that the Administration has not given due consideration and attached importance to the concept of environmental protection, as evidenced by the following cases relating to the implementation of the Penny's Bay Reclamation Stage 1 works and the entrustment works of the Container Terminal No. 9 (CT9) project;

Problems encountered in using public fill in the Penny's Bay Stage 1 Reclamation contract (PBR1 Contract)

- express serious concern that due to the collapse of the newly constructed seawall in Area W30 of the Tseung Kwan O reclamation contract (TKO Contract), the planned delivery of 3.6 million tonnes of public fill from the TKO Contract to the PBR1 Contract could not be made. Instead, marine sand had to be used in the PBR1 Contract;

- note that the Director of Civil Engineering has changed the design of the Penny's Bay Reclamation Stage 2 to increase the public fill intake by 3.6 million tonnes;

- express dismay that:

  (a) an additional cost of $7.7 million will be incurred in order to make arrangements to remedy the loss of opportunity to use the planned public fill in the PBR1 Contract; and

  (b) the site in TKO Area 137 will have to be occupied for stockpiling and sorting 3.6 million tonnes of public fill for about two years, which involves a notional land opportunity cost in the region of $6 million to $7 million per annum;

- urge the Director of Civil Engineering to ascertain the contractual liability for the additional cost involved and take action to pursue this claim against the parties responsible regarding the collapse of the seawall in Area W30 of the TKO Contract;

Need to follow prudent project management principles

- express serious concern that the Civil Engineering Department (CED) had committed the Government to making available Area W30 of the TKO Contract for use by the PBR1 Contractor by 1 July 2001 without securing the TKO Contractor's prior consent;

- acknowledge that the Director of Civil Engineering has issued guidelines for his staff to follow in handling similar situations in future;

- urge the Director of Civil Engineering to ensure that the CED will not offer to commit a third party to performing certain tasks unless the prior consent of this third party has been sought;

Problems of using public fill in entrustment works of CT9 project

- express concern that:

  (a) in the Land Grant of CT9, there was no provision requiring the developer to use public fill in the Government's entrustment works. As a result, the Government was unable to use 1.8 million tonnes of construction and demolition (C&D) materials in the CT9 project; and

  (b) the surplus C&D materials would have to be stockpiled in fill banks with a notional handling cost of $50 million;

- urge:

  (a) the Director of Civil Engineering to critically examine all existing government reclamation works entrusted to third parties to ascertain whether there are opportunities for using public fill in these works projects; and

  (b) the Secretary for Works to require all works departments to work closely with the CED to make full use of public fill in future entrustment works under their control and ensure that the legal documents for the entrustment works contain enabling clauses to meet this objective;

Need to implement the landfill charging scheme

- express dismay that although the legislation for implementing the landfill charging scheme has been in place since June 1995, the scheme has still not been implemented;

- urge the Administration to expeditiously implement the landfill charging scheme;

Need to promote wider use of recycled C&D materials

- express grave concern that as of December 2001, the estimated total demand for recycled aggregates by the works departments would only consume about one third of the planned output of the recycling plant in Tuen Mun Area 38 reclamation;

- urge the Secretary for Works and the Director of Civil Engineering to step up efforts to promote the wider use of recycled C&D materials in government projects so as to set an example for the construction industry to follow;

- acknowledge that:

  (a) the Secretary for Works will set up a working group to monitor and promote the use of recycled aggregates in public works projects;

  (b) as at May 2002, the works departments have identified 22 projects for which recycled aggregates can be used, so that the estimated total demand for recycled aggregates has increased to 900,000 tonnes for the next five years;

  (c) the works departments will be required to use recycled aggregates in half of their projects commencing in the coming six to nine months; and

  (d) the Environment and Food Bureau has been liaising with the Housing Department (HD) regarding the use of recycled aggregates in public housing projects, and the HD will complete an implementation plan in this regard by July 2002;

Room for improving the planning for off-site sorting facilities

- express concern that the actual throughput of the sorting facility at TKO Area 137 public filling area only averaged 35% of the expected level since its commissioning in August 2000 and had only made a limited contribution to the objective of saving landfill space;

- acknowledge that as of February 2002, the Director of Civil Engineering was considering the contractual complications and financial implications of continuing the operation of the TKO Area 137 sorting facility up to the end of its expected life in early 2003;

- urge the Director of Civil Engineering to:

  (a) realistically assess the resources required for operating a sorting facility up to its expected throughput; and

  (b) incorporate flexible provisions into the contract, if a sorting facility is to be operated in a public filling area, so that the sorting facility can

continue to operate in the event of an early cessation of the public filling operation;

Need to tighten the control over the disposal of C&D materials

- express concern that:

  (a) some 60,000 cubic metres of C&D materials of the Yuen Long Contract were used for illegal filling of fish ponds in the Tin Shui Wai Wetland Conservation Area; and

  (b) the requirements of Works Bureau Technical Circular (WBTC) No. 5/99 for the proper disposal of C&D materials had not been fully complied with in the Yuen Long Contract;

- acknowledge that:

  (a) the two landowners of the fish ponds concerned were fined a total of $20,000 and the ponds have been subsequently reinstated; and

  (b) the Director of Territory Development has undertaken to ensure that all relevant WBTC requirements for the proper disposal of inert C&D materials and C&D waste, such as those stated in WBTC No. 5/99, are included in contract documents and are complied with by the contractors during the execution of works;

- urge the Secretary for Works to consider ways to strengthen the control over the disposal of C&D materials at sites provided by the contractors; and

Follow-up actions

- wish to be kept informed of:

  (a) the outcome of the investigation into the collapse of the seawall in TKO Area 137 and the actions taken to pursue any claims from the parties responsible;

  (b) the actions taken by the Director of Civil Engineering to ensure that his staff will comply with the guidelines on prudent project management;

  (c) the outcome of the identification of opportunities for using public fill in all existing government reclamation works entrusted to third parties;

(d) further actions taken by the Secretary for Works and the Director of Civil Engineering to promote the wider use of recycled C&D materials in government projects so as to set an example for the construction industry to follow;

(e) further actions taken by the Secretary for the Environment and Food and the Director of Housing regarding the use of recycled aggregates in public housing projects; and

(f) the actions taken to strengthen control over the disposal of C&D materials at sites provided by the contractors.