

**立法會**  
**Legislative Council**

LC Paper No. CB(2)1605/99-00  
(These minutes have been seen  
by the Administration)

Ref : CB2/PL/EA

**LegCo Panel on Environmental Affairs**

**Minutes of Meeting**  
**held on Thursday, 2 March 2000 at 10:45 am**  
**in Conference Room A of the Legislative Council Building**

**Members Present** : Hon Christine LOH (Chairman)  
Hon HUI Cheung-ching (Deputy Chairman)  
Ir Dr Hon Raymond HO Chung-tai JP  
Hon Martine LEE Chu-ming, SC, JP  
Hon Fred LI Wah-ming, JP  
Hon CHEUNG Man-kwong  
Hon CHAN Wing-chan  
Dr Hon LEONG Che-hung, JP  
Hon Mrs Sophie LEUNG LAU Yau-fun, JP  
Hon LAU Kong-wah  
Hon Emily LAU Wai-hing, JP  
Hon CHOY So-yuk  
Hon Andrew CHENG Kar-foo

Non-Panel Member

Hon Mrs Selina CHOW LIANG Shuk-ye, JP

**Members Absent** : Prof Hon NG Ching-fai  
Hon Margaret NG  
Hon Ronald ARCULLI, JP  
Hon WONG Yung-kan  
Hon Mrs Miriam LAU Kin-ye, JP  
Hon LAW Chi-kwong, JP  
Dr Hon TANG Siu-tong, JP

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**Public Officers :**     For Item IV  
**Attending**

Mr Kim SALKELD  
Deputy Secretary for the Environment and Food

Mr Steve BARCLAY  
Principal Assistant Secretary for the Environment  
and Food

Mr Geoffery WOODHEAD  
Principal Assistant Secretary for Planning  
and Lands

Mr Mike BYRNE  
Principal Assistant Secretary for Works

Mr W H KO  
Assistant Director (Civil)/Port,  
Civil Engineering Department

Mr K M MO  
Assistant Director/Development,  
Buildings Department

Mr Chris GABRIEL  
Chief Architect/Design & Standards,  
Housing Department

For item V

Mr Kim SALKELD  
Deputy Secretary for the Environment and Food

Mr Steve BARCLAY  
Principal Assistant Secretary for the Environment  
and Food

Mr Roger LAI  
Deputy Director/Regulatory Services,  
Electrical and Mechanical Services Department

Mr K K LAM  
Chief Engineer/Energy Efficiency,  
Electrical and Mechanical Services Department

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**Clerk in Attendance** : Mrs Constance LI  
Chief Assistant Secretary (2) 2

**Staff in Attendance** : Miss Betty MA  
Senior Assistant Secretary (2) 1

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**I. Confirmation of minutes of meeting**

[LC Paper Nos. CB(1)928/99-00, CB(1)1042/99-00, CB(2)1234/99-00 and CB(2)1241/99-00]

The minutes of the joint meetings held on 14 and 16 December 1999, 7 January 2000 and the meeting of the Panel held on 7 January 2000 were confirmed.

**II. Date of next meeting and items for discussion**

[LC Paper Nos. CB(2)1232/99-00(01) and (02)]

2. The Chairman informed the meeting that the Administration had proposed the following agenda items for the next regular meeting scheduled for 7 April 2000 -

- (a) Wan Chai East and North Point Sewerage Stage 2;
- (b) Outlying Islands Sewerage Stage 1 Phase IC; and
- (c) Extension of North Lantau Country Park.

Members agreed that these items be included in the agenda for the meeting.

3. In addition to the items proposed by the Administration, the Chairman suggested that the following would require follow up by the Panel in April or May 2000 -

- (a) the progress of the international review panel on the Strategic Sewerage Disposal Scheme;
- (b) meeting with the two dioxin experts engaged by the Administration to study the clinical waste control scheme; and

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- (c) the research report prepared by the Legislative Council Secretariat on the quality of Dongjaing water and overseas experience in protection of water source.

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4. Responding to the Chairman, Principal Assistant Secretary for the Environment and Food (PAS(EF)) said that for item (b), the two dioxin experts for the study and the review would be in Hong Kong respectively in early April and early May 2000. The initial plan was for the dioxin experts to meet with green groups and local community in April, and to brief the Legislative Councillors and other interested parties on the study findings in May. The Chairman and Mr Martin LEE requested that the meeting with Members be advanced to April 2000 to facilitate early exchange of views before the expert formulated his findings. PAS(EF) agreed to check whether this could be arranged. On item (c), Miss Emily LAU suggested and members agreed that representatives of the Administration should be invited to join the discussion of the research report on the quality of Dongjiang water.

Clerk

5. On the Environmental Impact Assessment Study of the Hong Kong Disneyland project, Miss Emily LAU said that the Panel on Economic Services would discuss the issue at its next meeting scheduled for 27 March 2000. The Chairman agreed that the matter be followed up by the Economic Services Panel, with members of the Environmental Affairs Panel invited to join the discussion.

Clerk

6. The Chairman advised that the Panel Clerk would liaise with the Administration to finalize the agenda of the April meeting which could be advanced to 10 am if necessary.

### **III. Information paper issued since last meeting**

[LC Paper No. CB(2)1197/99-00(01)]

7. Members noted that the Administration had provided an information paper on the implementation of the Water Pollution Control (Sewerage) (Amendment) Regulation 1998.

### **IV. Managing construction and demolition material disposal**

[LC Paper Nos. CB(2)1232/99-00(03) to (05) and CB(2)1239/99-00(01)]

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8. Deputy Secretary for the Environment and Food (DS(EF)) invited members to visit public works construction sites to better understand the difficulties encountered and the progress made in managing and disposing of construction and demolition (C&D) materials. The Chairman said that the Panel Clerk would liaise with the Administration on the possible dates and details of

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Clerk the proposed visit.

9. DS(EF) said that it was Government policy to maximize re-use of public fill in land formation and reclamation so as to minimize disposal at the landfills. The Administration anticipated that there would be an acute shortfall of public filling capacity by 2001, and was now preparing a proposal to seek the endorsement of the Public Works Subcommittee (PWSC) to advance the Tuen Mun Area 38 Stage 2 Reclamation Project. He appealed to members for their support of the proposal.

10. Responding to Mr HUI Cheung-ching, DS(EF) said that the research findings showed no direct relationship between the amount of C&D waste and the economic situation. However, there appeared to be a positive relationship between the amount of domestic waste and the economic situation.

Measures to reduce C&D material

11. Miss Emily LAU noted that the Administration had adopted measures to reduce C&D material. She asked about the extent and progress of the implementation of these measures.

12. Chief Architect (Design & Standards) of Housing Department (CA/HD) said that the Housing Authority (HA) actively participated in the Waste Reduction Task Force for Construction Industry. He briefed members on the actions taken by HA on the reduction, re-use and management of C&D material generated by its demolition contracts. The measures taken by HA at different stages of the development process were set out in paragraph 3 of its paper [LC Paper No. CB(2)1232/99-00(05)]. He said that contractors were required to sort C&D material for proper disposal under the HA demolition contracts, as C&D material became the property of a contractor. Materials that could be re-used or recycled were separated from other C&D material before they were disposed of at landfills.

13. CA/HD further said that HA was carrying out surveys to assess the effectiveness of the orderly disposal of C&D material and the extent to which C&D waste was separated specifically for landfills and public fill areas. A "trip-ticket system" had been introduced in tenders since July 1999 to ensure that the waste was properly disposed of at the designated public filling facilities and landfills. In addition, HA was carrying out research studies on ways to reduce waste, including the use of pre-fabricated bathrooms in domestic flats, and incorporation of waste management plans in building and piling contracts. Since many Home Ownership Scheme (HOS) purchasers carried out extensive decoration and refitting out works before moving into their flats, HA was also considering three options of fitting out packages so as to reduce the generation of C&D waste. Details of the three options were set out in paragraph 7 of the

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Administration's information paper [Paper No. CB(2)1232/99-00(05)].

14. Assistant Director (Development) of Buildings Department (AD/BD) supplemented that a Working Group was formed under the Buildings Department (BD) with representatives from relevant departments and bureaux, building professionals and the construction industry. The Working Group was tasked to review the legislation and construction practices and to make recommendations to the Building Sub-committee of the Land and Building Advisory Committee. The Working Group had also reviewed the empty shell concept and considered that, save in special circumstances, a building should be provided with the requisite sanitary fitments before the issue of an Occupation Permit. This was based on the following concerns -

- (a) construction waste generated from the fitting out works carried out by individual contractors;
- (b) chaotic site situation arising from allowing individual owners to engage their own contractors for fitting out works; and
- (c) problems of testing the plumbing and drainage system without fitments.

15. AD/BD said that for developments where purchasers could have choices on the fitments, BD would allow the provision of fitments at a later stage. As regards other measures, the working group was studying the other issues relating to design, planning and construction for improving waste minimization and environmental protection.

16. Mr LAU Kong-wah noted that the public sector and private sector generated almost equal amounts of C&D material. Given that HA played a major role in public sector construction, Mr LAU was concerned about the measures taken by HA to reduce C&D waste. He also asked about the public response to the three options of fitting out packages proposed by HA.

17. CA/HD responded that the proposed options of fitting out packages had been discussed by the HA and LegCo Panel on Housing at the end of 1999 and in February 2000 respectively. The Housing Department (HD) had also conducted an opinion survey on the three options. Preliminary findings showed that about 20% of the respondents were in favour of the basic shell option, while the remaining respondents split equally between the standard option and upgraded option. The Building Committee of HA would meet again in March 2000 to decide on the options to be adopted. A pilot scheme would then be launched. CA/HD said that providing fitting out options would lead to more preparatory works, resulting in a tighter work schedule. There had been an encouraging response to the earlier pilot scheme for the Tin Shui Wai HOS blocks where

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purchasers were given a choice of colour of the bathroom and kitchen fittings. The amount of re-decoration work of these blocks were reduced substantially.

18. Mr LAU Kong-wah noted that the HD survey showed that HOS purchasers were generally in favour of the upgraded fitting-out option. This was consistent with the BD survey findings on private development that a less serious problem of decoration waste existed for blocks with satisfactory standard of essential fittings. However, since some HOS purchasers might prefer the standard option, Mr LAU would like to know the basis for HD to formulate its policy on fitting out packages.

19. CA/HD responded that the intention of the proposal was to offer a range of choices at the time of purchase. The Administration was open-minded on the options to be adopted for HOS blocks, pending further consideration by the HA and recommendations from the Working Group under BD on the general approach for the provision of fittings in public and private premises.

20. Mr Andrew CHENG considered that decoration waste generated from HOS flats and public housing units could be greatly reduced if the quality and standard of finishes and fitments were improved. He commented that HA failed to address the problem. He said that the quality of some of the HOS flats was much lower than that of the show flat.

21. CA/HD responded that HA recognized the need to upgrade the quality of the HOS flats. Based on survey findings, HA had reviewed specifications and introduced new designs of housing blocks, ranging from rental units equipped with minimum fitments to Concord Blocks equipped with upgraded finishes and fitments of a standard comparable to residential blocks built by private developers. As regards the decoration waste generated by public housing, it was noted from the survey carried out in late 1999 that about 40% to 50% of HOS purchasers carried out large scale re-decoration of their flats. While there might be different reasons for purchasers to re-decorate their flats, HA would focus on ways to improve the design of housing blocks, the construction methods, and specifications of fitting out works, etc. Moreover, potential HOS purchasers would have a clearer picture of the finishes and fitments of their flats by viewing the show flat.

22. Mr Martin LEE opined that the empty shell option would be the most desirable option as it would not give rise to any demolition cost. He urged the Administration to consider the option positively and offer more monetary incentive to attract active participation from developers and purchasers. He also suggested the Administration to engage its own contractors for installing fitments to ensure that the quality was up to the required standard.

23. CA/HD said that adoption of the empty shell option could only solve a

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small part of the problem of C&D material in the construction industry. The Waste Reduction Task Force for the Construction Industry was now actively examining ways to reduce waste and to conserve resources, such as the wider use of prefabricated building components, and use of modular flats in building designs. CA/HD advised that the empty shell option would require careful consideration as to its viability and marketability if it was adopted for HOS flats.

24. Mr CHAN Wing-chan opined that HA might explore the feasibility of extending the choices of fitting out packages to public housing units so as to further reduce the amount of C&D waste from the public sector.

25. CA/HD said that it had been the long standing policy of HA to provide only the basic fitting out for public housing rental units. However, there would be technical difficulties to extend the choices of fitting out packages to rental units, as prospective tenants would then have to choose the fitments during the construction stage. Moreover, a public housing unit might subsequently be re-allocated to another tenant who might have different preference.

26. Mr CHAN Wing-chan said that the large-scale re-decoration work carried out by HOS owners and public housing tenants had demonstrated their dissatisfaction with the quality and standard of the facilities provided. HA should therefore look into the problem seriously and improve the design and the quality of finishes and fitments.

27. Miss CHOY So-yuk said that the sub-contracting system in public housing construction was the cause of the substandard quality of finishes and fitments in HOS and public rental housing blocks. She pointed out that, after several tiers of sub-contracting, the actual amount spent on the fitments was only 1/6 of the HA contract price. The poor quality of the fitments had led to extensive re-decoration by purchasers and tenants, resulting in a waste of public resources for the provision of such fitments and the management of C&D waste. She suggested that HA should only settle the contract sum if the performance of and facilities provided by sub-contractors was satisfactory. Mr Martin LEE added that HA might consider including more detailed specifications of the fitments in the contract, and non-compliance would constitute a breach of contract conditions.

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28. CA/HD responded that the sub-contracting system was a common practice of the construction industry. He said that though the HA did not have direct control of the sub-contracted prices, the HA had a list of approved materials and products as one way to control the standard and specifications. He assured members that the standard of fitments was already specified in the main contract and that action would be taken against breaches of the contract. He added that HA was well aware of the problems relating to the sub-contracting system and had held regular meetings with the construction industry to address the problem. The subject would also be included in the quality housing consultancy study.

Effectiveness of measures to reduce C&D waste

29. Miss Emily LAU noted from paragraph 4 of the Administration's paper [LC Paper No. CB(2)1232/99-00(03)] that there was a 13% increase in construction material in 1999 over 1998, and that 79% of the total C&D material produced was re-used in reclamation. She asked whether the Administration had explored alternatives to further reduce the amount of waste and assessed the effectiveness of measures for greater use of recycled inert construction and demolition material as described in Annex F of the Administration's paper.

30. Assistant Director (Civil)/Port, Civil Engineering Department responded that about 80% of the C&D material would be re-used as filling material in reclamation and the rest would be disposed of at the landfills. About 20% of the C&D material of the latter category could be used for reclamation if further sorted, which would increase the total amount of C&D material that could be reused for reclamation to 84%. The Civil Engineering Department was also examining the feasibility of using recycled aggregate in construction works, which could further reduce the C&D waste by 1.3 million cubic metre a year. AD/BD added that the effectiveness of C&D waste reduction measures in private development had yet to be assessed as the Working Group in BD had only started work for some months.

31. DS(EF) added that the Administration was also tackling the problem of C&D material from the long term perspective. Firstly, the Administration was researching into ways to extend the life of a building through better maintenance. Improvements in construction technology, materials and design would help in making buildings more durable. These measures would defer the need for building demolition, thereby reducing the amount of C&D waste in the long term. Secondly, the Administration was studying ways to better manage C&D waste such as improving the quality of waste separation so that the final amount of C&D waste disposed of at the landfills could be reduced.

Landfills charging

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32. Miss CHOY So-yuk requested for a comparison on the landfill cost per tonne in Hong Kong with that in overseas countries. The Chairman also noted that the Chief Executive had indicated in his 1999 Policy Address the Government intention to put forward a proposal for landfill charging scheme. DS(EF) agreed to provide further information on comparative costs of landfilling.

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#### Public filling programme

33. The Chairman said that the Administration would seek funding approval for advancing the Tuen Mun Area 38 Stage 2 Reclamation Project shortly, in order to provide more public fill outlet after 2001. Mr CHAN Wing-chan noted that the public filling area at Tuen Mun would come to its full capacity in 2003 even though the Stage 2 Reclamation Project was advanced. He asked what would be the long term solution for C&D material, in particular the problem of timber waste.

34. DS(EF) said that the Government would endeavour to maintain an adequate supply of public fill capacity and to sort C&D material to minimize its disposal at the landfills. There was a rolling programme to provide public fill capacity. The Government would examine the feasibility of advancing some reclamation projects for receiving more public fill. As for timber waste, DS(EF) said that under the current practice, timber was separated from C&D material for re-uses. The amount of timber used in construction could be further reduced by the use of metal moulds and prefabrication of components.

35. Miss Emily LAU requested the Administration to provide an information note on the amount of waste reduced in past years and an estimate on the amount of C&D waste that could be further reduced, before the proposal to advance the Tuen Mun Area 38 Stage 2 Reclamation Project was discussed by PWSC. She was concerned whether C&D waste could be further reduced by means of more careful segregation before dumping the waste at landfills and public fill areas. DS(EF) agreed to provide the requested information before discussion by PWSC on 3 May 2000. He said that while measures had been taken to re-use as much C&D material as possible, some 16% of the total C&D material was a mixture of materials that could only be disposed of at landfills. With the demolition of old buildings and re-development of old public housing estates, it was anticipated that the volume of C&D material would continue to grow despite the mitigation measures. He stressed that the provision of adequate public fill areas would minimize unnecessary disposal of C&D material at the landfills.

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36. The Chairman expressed support for the PWSC proposal. Pending the Administration's further information on waste reduction, members raised no objection to the Administration submitting the proposal to PWSC.

**V. Energy Efficiency and Conservation Initiatives for 2000-2001**  
[LC Paper No. CB(2)1232/99-00(06) and (07)]

37. Members noted that the Administration had provided two information papers on the justifications for additional resources to implement the new initiatives.

38. DS(EF) said that between 1989 and 1999, there had been a 33% increase in per capita energy used in Hong Kong. This was largely due to an increase in oil product consumption, in particular road transport and electricity consumption which had an increase of 81% and 64% respectively. There was a notable change in energy consumption pattern over the past decade; transport and commercial sectors were now the major energy users. As reducing energy consumption and adopting a cleaner method of energy production would alleviate the pollution problem, the Administration was examining ways to tackle the problem from the following perspectives -

- (a) to encourage wider use of transportation system which operated on electricity as it was the most economic mode of road transport. It was noted that electricity operated transportation system carried 32% of total commuters and consumed only 3% of the total energy used in transport sector. On the other hand, private cars carried 15% of road passengers and accounted for 20% of the total energy consumption;
- (b) to take initiatives from the public sector to encourage greater efficiency in energy consumption through improvements to infrastructures or introducing regulations; and
- (c) to influence individual's choice in selecting energy saving products.

DS(EF) said that the Electrical and Mechanical Services Department (EMSD) was building up a database to identify energy use patterns and areas for cost-effective uses. The EMSD was working under a tight programme to meet the above targets.

### Water-cooled Air Conditioning Systems

39. Mr Fred LI expressed support for a wider use of water-cooled air conditioning systems (WACS) as studies on WACS suggested that they were more economically and environmentally attractive and could achieve energy savings of 17%-32%. However, as electricity companies were subject to a profit control scheme, he was concerned that a reduction in energy consumption arising from using WACS might lead to an increase in electricity charges ultimately. Deputy Director/Regulatory Services, Electrical and Mechanical Services Department (DD/EMSD) said that the existing systems would gradually be replaced by WACS and that a longer period would be required to assess the energy saving of WACS. The profit control scheme of the electricity companies was due to expire in 2008. In reviewing the scheme, the Government would take into account the decrease in demand for electricity arising from the wider use of WACS.

40. Mr Fred LI commented that EMSD was making slow progress on the wider use of WACS due to the profit control scheme. DD/EMSD stressed that the promotion of WACS was not related to the profit control scheme. He pointed out that a pilot scheme on WACS would start shortly, but its implementation on a territory-wide basis was presently constrained by the water supply and sewage infrastructures in certain districts.

41. Mr Raymond HO expressed support for relaxing the use of fresh water for air-conditioning as this could reduce electricity consumption.

42. Mr HUI Cheung-ching asked whether the relaxation of the use of fresh water for WACS would lead to an increase in water and sewerage charges. DD/EMSD said that the impact on the costs of water supply and sewerage infrastructure had been taken into account in the studies, and that WACS was still the more cost-effective option for energy saving.

43. Mr Fred LI expressed concern about the safety of some 12 000 illegal cooling towers. Since their existence was in breach of the Buildings Ordinance and the Waterworks Regulation, he asked whether there would be legislative amendments to rectify the situation. Mr Raymond HO and Mr HUI Cheung-ching shared the concern. Mr HO also urged the Administration to speed up the demolition of dangerous cooling tower structures. Mr HUI asked whether periodic inspections would be carried out to ensure the safety of these cooling towers.

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44. DD/EMSD said that although cooling towers were at present not subject to regulation, EMSD considered that existing users should have knowledge on proper maintenance of these cooling towers. The EMSD would therefore take a proactive approach to contact the owners and users of these cooling towers to explain the importance of proper maintenance and the prevention of Legionnaire Disease. The BD would also regularly inspect the structural safety of these cooling towers and take necessary actions. DS(EF) added that although EMSD was not the enforcement authority in respect of illegal water cooling towers, it would follow up with BD and Water Supplies Department if these cooling towers were found unsafe or unacceptable.

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45. PAS(EF) said that due to manpower constraints, priority had been given to the removal or relocation of those cooling towers which were structurally unsafe and would pose immediate danger to the pedestrians. He added that the Administration had provided information to the Public Accounts Committee of the Legislative Council on the actions taken against illegal WACS. He undertook to provide information on the monitoring of illegal WACS to the Panel.

Admin

46. Mr Raymond HO said that proper maintenance of water cooling towers was a crucial factor to prevent the Legionnaire Disease. He urged the Administration to issue clear guidelines to the building industry and engineers on proper maintenance. The Administration noted the suggestion.

Comprehensive energy policy

47. Miss Emily LAU remarked that the Administration failed to address members' concerns about the absence of a comprehensive energy policy. She was concerned that EFB and ESB might lack co-ordination resulting in conflicting policies and waste of public money.

48. DS(EF) responded that EFB would be responsible for areas of generating clean energy, using energy efficiently as well as providing advice and information to the public on energy efficient products. The Energy Advisory Committee and the Subcommittee on Energy Efficiency and Conservation, which comprised representatives of relevant government bureaux and departments, construction industry and academics, would provide co-ordinated policy input. As energy policy involved complex issues straddling a wide range of economic activities, the Administration would need detailed data collection and analyses before drawing up concrete proposals in this respect. He said that EFB and ESB would work together on the formulation of a high-level energy policy.

49. The Chairman stressed that some members were deeply concerned about

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Admin the absence of a comprehensive energy policy in Hong Kong and had requested the Administration to take up the matter at a high level. DS(EF) noted members' concern.

50. In concluding the discussion, the Chairman said that the Panel raised no objection to the Administration's funding proposals.

**VI. Any other business**

51. There being no other business, the meeting ended at 12:50 pm.

Legislative Council Secretariat  
28 March 2000