

立法會
Legislative Council

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Panel on Environmental Affairs

**Minutes of meeting held on
Monday, 28 June 2004, at 2:30 pm
in Conference Room A of the Legislative Council Building**

Members present : Hon CHOY So-yuk (Chairman)
Hon Cyd HO Sau-lan (Deputy Chairman)
Dr Hon David CHU Yu-lin, JP
Hon Martin LEE Chu-ming, SC, JP
Hon WONG Yung-kan
Hon LAU Kong-wah, JP
Hon Miriam LAU Kin-yee, JP
Dr Hon LAW Chi-kwong, JP
Hon Henry WU King-cheong, BBS, JP
Dr Hon LO Wing-lok, JP
Hon Audrey EU Yuet-mee, SC, JP

Non-Panel Member : Ir Dr Hon Raymond HO Chung-tai, JP
attending

Members absent : Hon Emily LAU Wai-hing, JP
Hon LAU Ping-cheung

**Public officers
attending :** **For item III**

Environment, Transport and Works Bureau

Mr Thomas CHOW
Deputy Secretary (Environment and Transport) E2

Mr C W TSE
Principal Assistant Secretary (Environment and Transport) E3

For item IV

Environment, Transport and Works Bureau

Dr Sarah LIAO
Secretary for the Environment, Transport and Works

Ms Doris CHEUNG
Deputy Secretary (Environment and Transport) E1

Mr Raistlin LAU
Principal Assistant Secretary (Environment and Transport) E1

Drainage Services Department

Mr Raymond CHEUNG Tat-kwing
Director of Drainage Services

Environmental Protection Department

Mr Robert John Steen LAW
Director of Environmental Protection

Mr Benny WONG Yiu-kam
Assistant Director (Waste & Water)

Camp Dresser & McKee International Inc

Mr John GALL
Vice President

Clerk in attendance : Miss Becky YU
Chief Council Secretary (1)1

Staff in attendance : Mrs Mary TANG
Senior Council Secretary (1)2

Miss Mandy POON
Legislative Assistant 4

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I. Confirmation of minutes, endorsement of the report of the Panel for submission to the Legislative Council and matters arising

- (LC Paper No. CB(1) 2212/03-04 — Minutes of the meeting held on 24 May 2004
- LC Paper No. CB(1) 2215/03-04(01) — Draft report of the Panel for submission to the Legislative Council
- LC Paper No. CB(1) 2215/03-04(02) — List of follow-up actions
- LC Paper No. CB(1) 2215/03-04(03) — List of outstanding items for discussion)

The minutes of the meeting held on 24 May 2004 were confirmed.

2. Members endorsed the draft report of the Panel on Environmental Affairs for the current session and authorized the Chairman to revise the report to cover discussion at this and further meetings before it was presented to the Council on 7 July 2004.

II. Information paper issued since last meeting

3. Members noted that no information paper had been issued since last meeting.

III. A plan to further reduce the emission of volatile organic compounds

- (LC Paper No. CB(1) 2215/03-04(04) — Paper provided by the Administration)

4. The Deputy Secretary for the Environment, Transport and Works (Environment and Transport) E2 (DSETW(ET)E2) briefed members on the proposed scheme to require registration and mandatory labelling of the content of volatile organic compounds (VOCs) in paints, printing inks and selected consumer products for sale in Hong Kong.

Overseas practices

5. While acknowledging that VOC limits for paints, printing inks and selected consumer products were imposed in the United States, Denmark, Netherlands and Sweden, Mr Henry WU asked if similar limits were imposed in Japan which was highly developed in printing technology. DSETW(ET)E2 advised that according to his understanding, Japan was also considering VOC control on consumer products.

Registration and labelling requirements

6. Ms Miriam LAU remarked that the trades were concerned about the proposed registration and labelling requirements as they would be required to produce testing reports for VOC-containing products. Given that Hong Kong was basically an

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importer of consumer products, it would have to rely on exporters to provide the requisite information on VOC content. Failure of exporters to provide such information might result in certain products not able to be sold in Hong Kong. The Administration should look into the problem from the trades' perspective to facilitate compliance with the requirements. DSETW(ET)E2 advised that as most of the VOC-containing products were chemical substances, the importers and manufacturers should already have detailed information about their composition. Therefore, retailers should have no problem in meeting the labelling requirement as in the case of the labelling scheme for pharmaceutical products.

7. Noting that apart from products which came in aerosol cans, products such as floor wax and hair shine, which were not commonly regarded as containing VOCs, were also included, Ms LAU was concerned that the wide range of VOC-containing consumer products to be covered under the proposed scheme would add difficulty for the trades to comply with the requirements. Expressing similar concern, Mr Henry WU questioned the need to regulate a wide range of products which contained only trace amounts of VOC. He pointed out that as VOC limits were not implemented worldwide, the proposed scheme would likely affect the import of VOC-containing products manufactured in countries such as Japan which did not have labelling requirement. If this was the case, the implementation of the proposed scheme would limit consumers' choice. He asked if the trades had been consulted on the proposed scheme.

8. DSETW(ET)E2 advised that the Administration planned to embark on a two-month public consultation exercise on the scheme starting September 2004. The Administration would take into account views of the trades before finalizing the scheme to strike a balance between the interests of the trades and the environment. To allow adequate transitional period for the trades such that they could make the necessary preparations, the registration and labelling scheme would take effect six months after enactment of the relevant legislation. The transitional period would be extended as necessary if the outcome of consultation revealed that the trades required a longer period.

Cost implication

9. Mr Henry WU and Ms Miriam LAU were concerned about the cost implication arising from the proposed registration and labelling requirements on importers and manufacturers, which in their views would invariably be transferred to consumers. DSETW(ET)E2 advised that laboratory fee for testing of VOC content would be in the region of \$1,000 to \$3,000 per product. While the registration fee had yet to be determined, this would likely be in the range of a few hundred dollars per product. Taking into account the quantity of consumer products being sold, the cost implication on importers and manufacturers concerned would be minimal.

10. While welcoming the proposed scheme which was worth pursuing as VOC emissions were hazardous to health and would have adverse impact on indoor air quality, the Chairman held the view that Government should take the lead in procuring

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products with low VOC content as far as possible. She also pointed out that the educational message “VOCs cause air pollution” to be included in the label was too vague. More explicit wordings such as “VOCs affect health” or “VOCs affect the environment” should be considered. DSETW(ET)E2 advised that guidelines on the use of VOC-containing products would be provided in the context of the Government’s indoor air quality management scheme. In line with the objective of the proposed labelling requirement, it would list out the high VOC-containing products which should best be avoided. If no alternative could be found for certain high VOC-containing products, their use should be kept to a minimum. Notwithstanding, he would follow up on the need for green procurement by Government. Consideration would also be given to re-phrasing the educational message to emphasize the effect of VOC emissions on health and the environment.

IV. Way forward for the Harbour Area Treatment Scheme (HATS) Stage 2/Findings of the trials and studies relating to HATS Stage 2

- (LC Paper No. CB(1) 2215/03-04(05) — Updated background brief prepared by the Legislative Council Secretariat
- LC Paper No. CB(1) 2215/03-04(06) — Way Forward for HATS Stage 2
- LC Paper No. CB(1) 2215/03-04(07) — Findings of Trials and Studies Relating to HATS Stage 2
- LC Paper No. CB(1) 2215/03-04(08) — Consultation document for HATS Stage 2)

11. The Secretary for the Environment, Transport and Works (SETW) explained that while HATS Stage 1 brought about substantial improvement in harbour water quality, HATS Stage 2 was needed to cater for future sewage flow increase and to provide the necessary treatment for the remaining 25% of HATS sewage flows generated from Hong Kong Island which was currently subject to screening only before being discharged into the harbour. The Assistant Director of Environmental Protection (Waste and Water) (ADEP(WW)) then gave a power-point presentation on the findings of the trials and studies relating to HATS Stage 2 and the Consultation Document for HATS Stage 2, including the Administration’s preferred option to expand and upgrade the Stonecutters Island Sewage Works (SCISTW) to provide centralized chemical treatment and disinfection for sewage from the whole HATS catchment, and to build a new biological treatment plant on a site adjacent to the existing treatment plant by phases. The Chairman also drew members’ attention to a submission from the Friends of the Earth (HK) (FOE) which was tabled at the meeting.

(Post-meeting note: Copies of the power-point presentation materials and FOE’s submission were circulated vide LC Paper Nos. CB(1) 2278/03-04(01) and (02) respectively.)

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Consultation Document for HATS Stage 2

12. Mr Martin LEE noted that the consultation period would expire on 20 October 2004 which was not long after the commencement of the new legislative term. He was concerned that there might not be sufficient time for newly elected Members to familiarize themselves with this complicated subject. He therefore requested the Administration to extend the consultation period. SETW said that the consultation period would last from 21 June to 20 October 2004. The Administration would make full use of the four-month period to gauge public views on the way forward for HATS Stage 2. Given the importance of the issue, the Administration would like to report to the Legislature the outcome of consultation as soon as practicable. Besides, there should be ample time for newly elected Members to get familiar with the issue given that the date of election was set on 12 September 2004.

13. The Chairman however pointed out that as the formal inauguration of the new Legislative Council would only take place in early October 2004, the Panel on Environmental Affairs might not be able to convene its meeting in October 2004. She therefore agreed with Mr Martin LEE on the need to extend the consultation period to end 2004. Ms Miriam LAU echoed that in order to allow new Members to discuss the subject at a Panel meeting to be convened after the opening of the new legislative term in early October 2004, the consultation period should be extended to at least late November 2004. Besides, some Members might wish to move a motion debate on an important subject like HATS. SETW said that as time was required to consolidate the views gathered during the consultation exercise, an extension of the consultation period might delay the release of the outcome of the consultation to the first quarter of 2005 and had knock-on impacts on the implementation timetable. However, in light of members' views, consideration would be given to extending the consultation period where necessary.

14. Mr Martin LEE noted that while the Administration had painted a very rosy picture on the improvement in water quality of the harbour after the completion of HATS Stage 2, some green groups had raised concerns about the efficacy of the treatment processes. He therefore considered it useful for the Panel to hold a special meeting to exchange views with interested parties on the way forward for HATS Stage 2. Members agreed that the special meeting be held on 7 July 2004.

15. While supporting that deputations should be invited to express their views, Ms Cyd HO opined that a decision on the way forward should be made based on the available options instead of wasting further time in finding new options. Also, the discussion should aim at identifying the best available option which was most suitable for Hong Kong in terms of types and levels of treatment rather than focusing on the anticipated increase in sewage charges. She also hoped that consolidated views could be made ready by October/November 2004 so that a timely decision on the way forward could be reached to facilitate early implementation of HATS Stage 2.

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16. In reply, SETW agreed that the consultation exercise should focus on issues such as the best configuration option, the optimal level of treatment, and the implementation strategy. However, the Government was also obliged to set out clearly the cost implications of cleaning the harbour, which was of major concern to the community at large. As regards Ms HO's enquiry about the Administration's plans to solicit public views on HATS Stage 2, SETW said that the Administration had all along been maintaining close liaison with experts and green groups on the way forward for HATS Stage 2 and a comprehensive publicity and consultation programme had been worked out. The Deputy Secretary for the Environment, Transport and Works(1) supplemented that a press briefing was held on 21 June 2004 to announce the commencement of the consultation period and the release of the Consultation Document. During the coming four months, the Administration would hold briefing sessions and a number of other activities for academics, green groups and district councilors to explain the Government's proposal for HATS Stage 2 and solicit their views.

17. Ms Miriam LAU opined that although the public would welcome the improvement in water quality of the harbour, they would need to know the likely increase in sewage charges as a result of the enhanced level of sewage treatment. The effect of an increase in sewage charges might be minimal on domestic households, but would be very significant on trades with a high level of water consumption. SETW admitted that sewage charges would likely be increased by 30% after the implementation of HATS Stage 2A. However, it was worth noting that the average sewage charge of about \$11 to \$12 per month for an ordinary domestic household in Hong Kong was among the lowest in the world as compared to Taiwan (\$14 per month), Vancouver (\$37 per month), Singapore (\$58 per month) and Tokyo (\$71 per month). According to the prevailing charging policy, the Government was only recovering 50% of the recurrent cost of providing sewage services, after excluding the depreciation cost. At present, roughly 80% of the expenditure on providing sewage services was for handling the sewage produced from domestic households and ordinary businesses which were required to pay sewage charges, while 20% was for handling the more polluted sewage generated by 30 specific trades which were required to pay the trade effluent surcharges (TES) in addition to sewage charges. The Administration was well aware of the concerns of the catering industry and had been maintaining close liaison with Mr Tommy CHEUNG, the Member returned from the catering constituency, even before the start of the consultation exercise. The Administration would review the charging policy and the appeal mechanism for TES in light of the trade's concerns. Given that an increase of 30% in sewage charges would have a substantial impact on the community, Ms LAU urged the Administration to take into account public views in setting the level of charges.

The preferred option

18. Ir Dr Raymond HO noted that as a result of the developments over the years, the preferred treatment strategy recommended by the second International Review Panel (IRP) was different from that by the first IRP, albeit both of which were chaired by the same person. He then enquired about the basis upon which the preferred

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option of centralizing sewage treatment at SCISTW was arrived at. In reply, SETW said that the choice between centralized or decentralized treatment for sewage in Hong Kong had been a subject of contention since the 1980s. Overseas experience showed that with enhanced environmental awareness, there were increased difficulties in providing distributed treatment facilities in densely populated areas due to the potential impacts of such facilities on the surrounding environment. As a result, all populated countries in the world had ultimately chosen centralized treatment for their sewage. For instance, Singapore had all along been adopting secondary treatment for its sewage through a system of distributed treatment facilities. However, it had now followed Hong Kong to centralize the treatment of sewage before the sewage was discharged through an outfall to Changi River. Therefore, the preferred option of centralizing treatment at SCISTW was considered a sensible choice.

19. Ir Dr HO was concerned about the problems relating to pump failure in the event of centralizing sewage treatment at SCISTW. The Director of Drainage Services (DDS) agreed that the pumping station was a vital part of a sewage treatment facility. In this connection, the design had already incorporated the provision of standby pumps in SCISTW under HATS Stage 1. To further reduce the risk of pump failure, consideration would be given to inter-connecting the HATS Stage 1 main pumping station with the additional pumping station required under HATS Stage 2. Ir Dr HO further questioned the efficacy of using short submerged outfall for effluent discharge having regard to the background pollution from the Pearl River. SETW noted that the impact arising from the Pearl River was more obvious during spring and summer but the water quality of the harbour area was mainly affected by local discharges. That said, the Administration did maintain close liaison with the Guangdong Provincial Government with a view to coordinating efforts to prevent and mitigate water pollution.

20. As one of the four-member delegation of the Panel visiting Europe in April 2001 to study the options for sewage treatment in Hong Kong, Ir Dr HO said that the delegation had identified the Biological Aerated Filter (BAF) technology as a possible option. However, under the Administration's preferred option, a new biological treatment plant would only be provided in the second stage (HATS Stage 2B) of HATS Stage 2. It appeared that there was still a long way to go before the intended improvements in the water quality of the harbour could materialize. Given that secondary treatment by BAF technology was proven to be feasible, Ir Dr HO considered it necessary for the Administration to confirm that the provision of biological treatment facilities in HATS Stage 2 would be proceeded as planned.

21. SETW advised that at present, Chemically Enhanced Primary Treatment (CEPT), which combined a primary sedimentation process with addition of ferric chloride, was adopted in SCISTW for treating sewage. CEPT was found to be very suitable for the Hong Kong environment and was able to remove 70% of the organic pollutants, albeit a large amount of sludge was generated as result of the use of ferric chloride. It was more stable and easier to manage than biological treatment which was dependent on a number of factors, including temperature and density of sewage. In fact, CEPT had been widely acclaimed in North America by the Water Environment

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Foundation and other international researchers as an effective means of sewage treatment, and in some cases, it was even found to be nearly as effective as biological treatment. Some cities in North America were also adopting CEPT for treatment of sewage. In the light of significant improvement to the harbour water quality brought about by HATS Stage 1, the Administration was of the view that HATS Stage 2A should proceed as soon as possible to provide better treatment for the remaining 25% of the HATS flows from Hong Kong Island which was only subject to preliminary screening at present.

22. On the adoption of a phased approach to implement HATS Stage 2, SETW stressed that this was not meant to procrastinate the process. Given that the first phase (HATS Stage 2A) which involved the expansion of SCISTW to provide centralized chemical treatment for all sewage from the whole of the HATS catchment and the fasttrack provision of disinfection was less contentious, a phased approach would enable its early completion to bring about the needed improvements to the harbour water quality. In view of the substantial capital and recurrent costs as well as the uncertainties associated with the provision of a biological treatment plant under HATS Stage 2B, more detailed planning would be required and therefore the Administration proposed to undertake the necessary preparatory works such as the environmental impact assessment (EIAs), site investigation and land reservation first. SETW stressed that the Administration was genuinely committed to HATS Stage 2B but it had the responsibility to optimize the introduction of the costly and complicated biological treatment systems to tie in with the actual need in view of the substantial investment involved.

23. The Chairman noted with despair the slow progress of HATS since 1997. For the past years, the Administration had been wavering between the choice of centralized and decentralized treatment. Although the BAF technology was identified as a feasible option, it appeared from the discussion paper that the Administration had no plan to provide biological treatment upfront but would consider its provision in the light of the water quality monitoring results and population changes. She was skeptical that the Administration might defer the implementation Stage 2B indefinitely. She then enquired about the impact of the use of ferric chloride and disinfectant on the marine environment.

24. In reply, SETW stressed that the Administration had made major progress over the past years by completing HATS Stage 1 and finding a way forward for HATS Stage 2. She pointed out that there was a high degree of uncertainty associated with sewage treatment and this explained why experts such as Dr HARLEMANN, former IRP Chairman, had overturned his original recommendation on the way forward for HATS. She opined that the Government had made a right decision to adopt CEPT under HATS Stage 1, as otherwise the present improvements in water quality of the harbour could not have been achieved.

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25. On the effect of residual ferric chloride on the marine environment, the Director of Environmental Protection (DEP) advised that the concern about sedimentation and its impact on the quality of water was unfounded given the very small amount of residual ferric chloride from CEPT. He nevertheless agreed to provide a quantitative analysis on the effect of ferric chloride on the marine environment as requested by the Chairman. As regard the use of disinfectants, ADEP(WW) explained that chlorine and ultraviolet light were commonly used to disinfect effluent on a large scale. Although the use of chlorine would give rise to problems such as generation of by-products, these were not insurmountable and could be dealt with through a process of dechlorination at an extra cost. Besides, chlorine was considered more acceptable than ultraviolet light as the latter would be less effective in treating CEPT effluent. He added that if it was the intention that the water quality of the harbour should be improved to such an extent to allow for cross-harbour swimming and re-opening of Tsuen Wan beaches, there was a price to be paid.

26. To facilitate better understanding of HATS Stage 2, the Chairman said that the Administration should make known all the salient facts to the public. She also asked if an EIA and an Operational Risk Assessment (ORA) would be conducted to ascertain the risk of centralized treatment and how the Administration would proceed with HATS Stage 2B. SETW advised that the Environmental and Engineering Feasibility Study (EEFS) had assessed the feasibility of the four IRP options. While the study was not executed as a formal study under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO), water quality assessment was conducted in line with the requirements of EIAO. Moreover, an ORA was also conducted as part of EEFS and the outcome indicated that risks could be adequately contained through adopting good practices, provisions of standby units, etc. DEP added that a Monitoring Group comprising the three former local IRP members, including Professor Rudolf WU who was an expert in water quality, had been set up to monitor the trials and studies relating to HATS Stage 2. The Monitoring Group had generally endorsed the Government's proposals set out in the Consultation Document. He shared Ms Cyd HO's view on the need to make a decision on the way forward for HATS Stage 2 as it appeared that the subject had dragged on for too long. Besides, a wide range of different ideas and vested interests might arise if the consultation process was allowed to keep going. He added that the Administration had examined all the four options proposed by IRP very carefully and had recommended one which was considered most suitable for Hong Kong. All of the related information was made available on the Internet. He urged Members and the public to participate in the consultation exercise with a view to reaching a consensus on the way forward for HATS Stage 2.

27. The Chairman expressed disappointment that the Administration had spent the past four years to conduct trials and studies only to come up with the conclusion that CEPT was the best treatment option. She remained concerned that after the construction of the deep tunnels to transfer sewage to SCISTW under HATS Stage 2A, the Administration would try to dissuade the public from supporting the provision of biological treatment by playing up the anticipated increase in sewage charges. SETW clarified that the trials and studies were worthwhile as BAF technology had not been

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tested on effluent with a high level of salinity. She added that the public was unable to reach a consensus on the way forward for HATS Stage 2 four years ago and had to resort to expert opinions. With the satisfactory performance of HATS Stage 1, there should not be any further doubt on the effectiveness of CEPT as the basic level of sewage treatment, to be supplemented by more advanced biological treatment at HATS Stage 2B when the actual need arose.

28. DEP supplemented that the Administration had made it clear in the Consultation Document that BAF technology was feasible, and that there was no difficulty in adopting the technology in Hong Kong. However, it would make sense to keep options open for the precise technology to be used and only include the performance specifications in the ultimate tender document. This would encourage competition among different technology providers during the tendering stage to achieve the best value for money. He added that it was the Administration's belief that HATS Stage 2B was needed in the long term but the precise timing of implementation would depend on population growth and water quality monitoring results.

29. DDS added that conventional biological treatment itself was not difficult to implement but the main constraints were related to land and resources. At present, there were six sewage treatment works (STWs) in Hong Kong which provided biological treatment, all of which required a huge land commitment. By way of illustration, the Shatin STW, which had a treatment capacity of 0.33 million tonnes per day, was larger in area than SCISTW, which had a design capacity of 1.7 million tonnes per day. Even if SCISTW were to accommodate compact biological treatment facilities, an additional 12 hectares of land would be required. Ir Dr Raymond HO asked whether the biological treatment facilities could be built underground albeit this would incur extra construction costs. SETW advised that the biological treatment facilities proposed under HATS Stage 2B were envisaged to be underground in order to free up the surface land for other uses. At the Chairman's request, the Administration undertook to provide the design parameters, including the population projections, adopted in the planning of HATS Stage 2.

30. Noting that the designed capacity of SCISTW had not been fully utilized, Ir Dr HO asked if the implementation of HATS Stage 2 would optimize the remaining capacity. SETW advised that SCISTW was designed to handle 1.7 million tonnes of sewage per day. At present, about 1.4 million tonnes of sewage was handled per day. It proved that the designed capacity of SCISTW under HATS Stage 1 was quite accurate given that a reasonable capacity buffer must be allowed for future growth in all systems.

31. Given the scale and cost HATS Stage 2, Ir Dr HO agreed that the Administration should be more cautious about its way forward. He then asked if the Administration would seek the views of the former IRP on the findings of the trials and studies for HATS Stage 2. SETW said that the former IRP had no further obligations to give views on the findings of the trials and studies. However, the three local members of the former IRP had already joined the Monitoring Group formed to

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monitor the trials and studies for HATS Stage 2. Ms Cyd HO suggested inviting the three former IPR local members to attend the special meeting on 7 July 2004 so that they could explain to members the basis of their recommendations.

32. Judging from previous failures in the construction of underground tunnels, Ir Dr Raymond HO stressed the need to take into account local geotechnical experience in the award of tenders for HATS Stage 2A. SETW admitted that there was a host of construction problems as well as occupational risks associated with the construction of HATS Stage 1. The tunnel construction for HATS Stage 1, the original contracts for which were forfeited, had been re-tendered and completed with lessons learnt from the entire process.

33. Ir Dr HO expressed concern that HATS Stage 2 might not benefit the local labour market given that workers engaged in the projects under HATS Stage 1 were all expatriates. SETW explained that there were difficulties in engaging local workers for menial jobs with unpleasant working environment such as those involving tunneling works. The problem was further aggravated during a bullish property market when there was a lot of ongoing construction works.

V. Any other business

34. There being no other business, the meeting ended at 4:30 pm.

Council Business Division 1
Legislative Council Secretariat
2 August 2004