

**立法會**  
**Legislative Council**

LC Paper No. CB(1) 417/07-08  
(These minutes have been seen  
by the Administration)

Ref : CB1/PL/EA/1

**Panel on Environmental Affairs**

**Minutes of meeting**  
**held on Monday, 26 November 2007, at 1:30 pm**  
**in Conference Room A of the Legislative Council Building**

- Members present** : Hon Audrey EU Yuet-mee, SC, JP (Chairman)  
Hon Emily LAU Wai-hing, JP (Deputy Chairman)  
Ir Dr Hon Raymond HO Chung-tai, SBS, S.B.St.J., JP  
Hon Martin LEE Chu-ming, SC, JP  
Hon SIN Chung-kai, SBS, JP  
Hon Howard YOUNG, SBS, JP  
Hon LAU Kong-wah, JP  
Hon Miriam LAU Kin-ye, GBS, JP  
Hon CHOY So-yuk, JP  
Hon LEE Wing-tat  
Hon Jeffrey LAM Kin-fung, SBS, JP  
Hon CHEUNG Hok-ming, SBS, JP
- Members attending** : Hon Mrs Selina CHOW LIANG Shuk-ye, GBS, JP  
Hon WONG Kwok-hing, MH
- Member absent** : Hon WONG Yung-kan, SBS, JP
- Public officers attending** : **For item IV**
- Mr Edward YAU  
Secretary for the Environment
- Ms Anissa WONG  
Permanent Secretary for the Environment
- Mr Carlson K S CHAN  
Deputy Director of Environmental Protection (3)
- Mr TSE Chin-wan  
Assistant Director of Environmental Protection (Air Policy)

Mr MOK Wai-chuen  
Principal Environmental Protection Officer (Mobile  
Source Control)

Mr Eric CHAN  
Administrative Assistant to Secretary for the Environment

**For item V**

Mr Edward YAU  
Secretary for the Environment

Ms Anissa WONG  
Permanent Secretary for the Environment

Dr Mike CHIU  
Deputy Director of Environmental Protection (1)

Mr Eric CHAN  
Administrative Assistant to Secretary for the Environment

**For item VI**

Mr Raymond FAN  
Deputy Director of Environmental Protection (2)

Dr Malcolm BROOM  
Assistant Director (Water Policy)  
Environmental Protection Department

Mr W H KO  
Assistant Director (Sewage Services)  
Drainage Services Department

Mr W W CHUI  
Chief Engineer (Harbour Area Treatment Scheme)  
Drainage Services Department

**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 (1)4

---

**I. Confirmation of minutes**

(LC Paper No. CB(1) 282/07-08 — Minutes of the meeting held on 22 October 2007)

The minutes of the meeting held on 22 October 2007 were confirmed.

**II. Information paper issued since last meeting**

2. Members noted that the following paper had been issued since last meeting -

LC Paper No. CB(1) 249/07-08 — Letter from WWF Hong Kong on the CLP's proposal of constructing a liquefied natural gas receiving terminal at South Soko Island, together with the Administration's response

**III. Items for discussion at the next meeting**

(LC Paper No. CB(1) 283/07-08(01) — List of follow-up actions  
LC Paper No. CB(1) 283/07-08(02) — List of outstanding items for discussion)

3. Members agreed to discuss the following items at the next regular meeting scheduled for Monday, 17 December 2007, at 8:30 am -

- (a) Mandating the use of ultra low sulphur diesel in industrial and commercial processes;
- (b) Promotion of cleaner production in the Pearl River Delta Region; and
- (c) A proposal to amend the Air Pollution Control Ordinance (Cap. 311).

It was also agreed that trade associations would be invited to attend the meeting to express their views on item (a).

4. The Chairman said that the Secretariat had issued a circular soliciting members' view on the proposal to extend the duration of regular meetings from two hours to three hours (i.e. from 1:30 pm to 4:30 pm instead of from 2:30 pm to 4:30 pm) to allow sufficient time for discussion of the anticipated large number of items. Mr Jeffrey LAM said that he did not agree to the proposal as the regular meetings of the Commerce and Industry Panel, which were also held on the fourth Monday of every month at 10:45 am, might overrun and clash with each other. However, he would not object to extend meetings on a need basis. In light of members' view, the Chairman said that extension of meetings would be assessed on a need basis, taking into account the agenda of the meetings.

5. Ms Miriam LAU held the view that meetings should be conducted in an efficient and effective manner. She did not want to see the situation where members could not have sufficient time for discussion even if the meeting duration had been extended. By way of illustration, deputations' request to attend for discussion on agenda item IV on public consultation on banning idling vehicles with running engines had been declined on grounds of time constraints when the meeting time had already been extended to three hours. The Chairman said that the Administration had proposed to brief the Panel after release of the Consultation Document on banning idling vehicles with running engines. The discussion today was a preliminary one as the Administration would proceed to consult the newly elected District Councils at a later stage. After deliberation, members agreed to hold a special meeting on Tuesday, 8 January 2008, at 8:30 am to receive views from deputations.

6. Members also agreed to hold an informal meeting with the Advisory Council on the Environment on Friday, 4 January 2008, at 9:00 am.

#### **IV. Public consultation on banning idling vehicles with running engines**

(Ref: EP150/V6/2

- LC Paper No. CB(1) 283/07-08(03) — The Legislative Council Brief
- LC Paper No. CB(1) 283/07-08(04) — Administration's paper on public consultation on banning idling vehicles with running engines
- LC Paper No. CB(1) 283/07-08(04) — Paper on control of idling engines prepared by the Legislative Council Secretariat (Background brief)
- LC Paper No. CB(1) 319/07-08(01) — Submission from Public Light Bus General Association
- LC Paper No. CB(1) 319/07-08(01) — Submission from Hong Kong Waste Disposal Industry Association)

7. The Secretary for the Environment (SEN) briefed members on the Administration's proposal to ban idling vehicles with running engines by highlighting the salient points in the information paper. He said that the Consultation Document was published on 2 November 2007 for collection of public views by 31 March 2008.

8. While supporting the proposal to ban idling vehicles, Mr WONG Kwok-hing was concerned about the lack of proper consultation with the transport trades as they were strongly opposed to the proposal. He enquired if there would be a timetable for the Administration to consult the affected trades with a view to arriving at a mutually acceptable solution. Ms Miriam LAU also said that while the transport trades were supportive of measures to improve roadside air quality, there were operational difficulties for the trades to comply with the proposed ban. She opined that the trades would not have raised so many queries on the ban had there been adequate consultation. SEN said that the proposed ban on idling vehicles was nothing new and extensive public consultation on the subject was held in 2000. On

7 December 2005, the Legislative Council (LegCo) passed a motion requesting the Government, among a package of measures to curb the trend of continuing deterioration of air quality in Hong Kong, to introduce legislation to require motorists to switch off their engines while waiting. Recently, the call for tightening the control on idling vehicles was mounting in the community amid the growing concern about air quality. The Consultation Document on the proposal to ban idling vehicles with running engines had set out the proposed implementation framework of the ban, including exemptions which would be granted under different circumstances. He added that there had all along been close liaison between the Administration and the affected trades on the proposed ban, the latter were encouraged to make use of the consultation period which would expire on 31 March 2008 to express their views. It was hoped that the proposed statutory ban would help change the habits of drivers and in turn improve the road side air quality.

9. While expressing support for the proposed ban, Ms Emily LAU recalled that the motion passed at the Council meeting on 7 December 2005 was meant to accord priority to control emissions from idling engines of private cars, government vehicles as well as vehicles within school and hospital premises. However, it appeared that the proposed ban as set out in the Consultation Document had expanded its coverage to all vehicles. She questioned if the expanded scope had gone through public consultation. SEN explained that there was a need for expanding the scope of the ban to take account of growing public concerns about air quality in Hong Kong. The latest development indicated that the community had become more intolerant of idling vehicles and demanded a more aggressive approach. Ms LAU said that the Administration should have consulted Members on any expansion in scope. SEN said that the proposed ban was not new and had in fact been set out in the Policy Address. It was intended that the scope of the ban should be widened for more effective results. The Permanent Secretary for the Environment (PS(Env)) added that since public consultation on the proposal to control idling vehicles was first held in 2000, the Environmental Protection Department had, in consultation with the Transport Department, worked out guidelines on the control of idling engines for the transport trades, including taxis and public light buses (PLBs). The concept of controlling idling engines had all along been intended for all vehicles and not only private cars and government vehicles.

10. Referring to the proposed exemptions set out in paragraph 7 of the LegCo Brief, Mr WONG Kwok-hing opined that it would be difficult to define what should be regarded as "active boarding or alighting". He also questioned the rationale for exempting the first two taxis at a taxi stand and the first two PLBs at a PLB stand. SEN said that the exemptions as proposed were meant to facilitate the operational needs of certain vehicles and the Administration would welcome any views on the proposed exemptions. Referring to the submission from the Hong Kong Waste Disposal Industry Association on its request for exemptions in respect of vehicles which were required to run their engines (including on-board auxiliary engines) for some ancillary purposes, SEN said that the proposal already included exempting that category of vehicles, such as lorry cranes and refrigerator trucks.

11. Noting that the Consultation Document had cited some control measures in overseas city, Ms Miriam LAU questioned why public views were not sought on whether exemption from the proposed ban would apply if the ambient temperatures reached 27°C or above as in the case of Canada. She also enquired about the situation in Singapore which also imposed a statutory ban on idling vehicles but without exemptions to take account of the operational needs of certain vehicles. SEN said that the Administration would be open to views from members of the public as well as the trades on how the proposed ban should be implemented. It was intended that the ban would be imposed territory-wide and all year round and not only in certain months of the year. Contravention should not be based on how long an idling vehicle had kept its engine running as this would create an intractable enforcement problem and could lead to disputes between law enforcement officers and drivers. On concerns about the feasibility of the proposed ban in Hong Kong given its hot weather in summer, it was worth noting that the ban was successfully implemented in Singapore which had similar weather conditions as Hong Kong in the summer. At members' request, the Administration undertook to provide the implementation details of the control scheme on idling vehicles in Singapore.

12. Mr Jeffrey LAM said that while the general public would not object to measures to improve the environment, including the control on idling vehicles, there was a need for clear guidelines on the implementation of the proposed ban. Taxi drivers had raised concerns that those waiting in line at the taxi stands would need to switch on and off their engines which would in turn generate more emissions than keeping their engines idling. To justify the proposed ban, there was a need for comparison between emissions from engines which were idling and engines which were restarted after being switched off. SEN said that a comparison between emissions while engines were running and idling was provided at the LegCo Brief. Besides, based on studies in Canada, the fuel consumed and carbon emissions due to restarting an engine could be less than operating an idling engine for 10 seconds. Nevertheless, he would try to collate more information on emissions from engines which were idling and engines which were restarted after being switched off.

13. Referring to the table under section 2 of the Consultation Document, Ms Emily LAU sought explanation on the comparison of emissions from running and idling vehicles. SEN explained that while the emissions of a diesel PLB with an idling engine were about half or less than half of those of a moving diesel PLB, the idling engine was still producing pollutants which had impact on air quality. The same applied to diesel heavy diesel vehicles. As for petrol private cars, an idling engine was emitting almost as much carbon monoxide and hydrocarbons as an engine of a moving vehicle. Therefore, there was a need to introduce the proposed ban.

14. Miss CHOY So-yuk agreed with other members that the Administration should have consulted the transport trades on the details of implementation before issuing the Consultation Document. While acknowledging that there were many other more effective measures than the proposed banning of idling vehicles, which in her view would not contribute much to improving air quality, Ms CHOY said that she was supportive of the proposal as it would bring about some improvements regardless how minor these might be. She also enquired about the enforcement actions to be

taken as it appeared that no provisions had been made for warning to drivers who failed to switch off their idling engines. SEN said that the Administration would wish to seek public views on the way forward for implementing the ban before finalizing on the details of implementation. Meanwhile, some exemptions were worked out to meet the operational needs of the trades. As regards enforcement against non-compliance with the ban, SEN said that this would be simple and in the form of a fixed penalty system as the Administration's objective was not to generate revenue but to change the habits of drivers for the benefit of the environment.

15. Mr LEE Wing-tat said that Members of the Democratic Party would support the proposed ban on idling engines to improve roadside air quality. As the proposed ban aimed at promoting public health and was beneficial to the environment, it should have been implemented years ago without going through repetitive consultations. He therefore failed to understand why there were many who claimed to support the need to control idling engines had criticized the proposed ban on account of the many queries on the implementation details which had in fact been set out in the Consultation Document. He did not wish to see the ban being further procrastinated because of the trades' concerns about the implementation details. He called upon environmentalists to come forward and express their support for the proposed ban. SEN stressed that the purpose of public consultation was to gather public views and he hoped that the public as well as all affected parties would come forward and give their views on the proposal. The Administration would be pleased to exchange views with the trades on the implementation details of the ban.

16. Mr SIN Chung-kai said that the community was in general supportive of the proposed ban and many housing estates had posted signs urging drivers to switch off their idling vehicles. He opined that similar to the smoking ban, the proposed ban on idling engines, when implemented, would bring about a much cleaner environment for the benefit of the community. He nevertheless appreciated the trades' concerns about the implementation details of the proposed ban and agreed that these should be addressed expeditiously. In this connection, Mr SIN asked if the Administration would consider introducing in May 2008 a White Bill on the proposed ban incorporating the measures it would take to address the trades' concerns put forward before the expiry of the consultation period on 31 March 2008. This would allow for further consultation during the dissolution of LegCo so that by October 2008, the Blue Bill on the proposed ban could be introduced, in time for scrutiny by the Fourth Legislative Council. SEN said that since the consultation period would end on 31 March 2008, the Administration might not be able to introduce the Bill within the 2007-2008 legislative session. Notwithstanding, it would step up publicity and public education on the need to switch off idling vehicles pending the introduction of the legislation.

**V. Proposed capital injection into the Environment and Conservation Fund**  
(LC Paper No. CB(1) 283/07-08(05) — Administration's paper on proposed capital injection into the Environment and Conservation Fund

LC Paper No. CB(1) 283/07-08(06) — Paper on Environment and Conservation Fund prepared by the Legislative Council Secretariat (Background brief)

17. Ms Emily LAU said that members would like to find out more about the effectiveness of the projects funded by the Environment and Conservation Fund (ECF) as they needed to know whether the objectives of the projects were met and if so, the environmental gains. PS(Env) advised that the list of projects funded by ECF in 2006 and 2007 was set out in Annex C to the Administration's paper. She was pleased to inform members that the number of participants in the community waste recovery projects as well as the Programme on Source Separation of Domestic Waste (the Programme) were increasing. These participants were mostly owners' corporations of large housing estates and their participation was indicative of the increased public awareness on the need for waste recovery and recycling. There were also other participants in the pilot nature conservation management agreement projects. Project proponents were required to adopt an outcome-based approach by placing more emphasis on the benefits and deliverables of the projects. They were also required to provide a report and their work would be monitored against the specific targets set and expected demonstrable outcomes. A survey would be conducted on the participants in the projects to gauge their views on the projects.

18. Ms Emily LAU said that in future, project proponents should be required to set specific targets and to quantify the environmental gains from the funded projects. To justify the funding, quantifiable indicators should be used to assess the effectiveness of the funded projects. Mr SIN Chung-kai agreed to the need to have quantifiable indicators in assessing the cost-effectiveness of ECF funded projects. By way of illustration, the effectiveness of the Programme could be assessed by the amount of waste reduced as a result of increased participation in the Programme. He also suggested that funding be provided for theme-based recycling projects in different times of the year, such as recycling of toys during Christmas time for the benefit of underprivileged children. Recycling of books was also another viable project.

19. PS(Env) explained that each project proponent would be required to provide specific targets and expected number of participants etc. when applying for funding under ECF. In addition, recipients of funding support would be required to include experience sharing sessions as part of their deliverables in a bid to facilitate knowledge transfer among interested applicant parties and help roll out similar worthwhile projects in different sectors in the community. They were also required to submit regular progress reports to the Secretariat of ECF Committee for review. She agreed to provide information on the evaluation of project effectiveness. On the effectiveness of waste recovery projects, PS(Env) said that while there was no exact figure on the amount of waste which had been recycled/reduced by each housing estate, there had been an increasing number of participating housing estates under the Programme, involving a population of 2.8 million. The amount of domestic waste disposed of in landfills had also decreased by about 3% in 2006. These indicated that there was increasing community support for waste reduction and recycling projects. On theme-based recycling projects, PS(Env) affirmed that similar projects had all

along been organized in different times of the year, such as the recycling of used electrical appliances in the 18 districts at the end of the year. With the increased funding for ECF, a more proactive approach could be adopted in identifying potential collaborators to take on projects which could bring about noticeable and widespread impact on the community, such as those involving educational and community involvement campaigns in environmental protection and technology transfer to practitioners. Ms Miriam LAU however noted that the recycling of toys was found to be infeasible by welfare organizations lest the used toys might contain substances which might cause harm to the children. More efforts should be made to recycle reusable items such as computers, books and clothing.

20. Miss CHOY So-yuk declared interest as a member of the ECF Committee and the Chairman of the Waste Recovery Projects Vetting Sub-Committee for the Programme. She said that stringent criteria were adopted in approving funding applications for ECF, and that the funds allocated under the Programme were meant to subsidize participating housing developments in the purchase of the three-coloured bins for the segregation of waste. While supporting the provision of more funds to promote public awareness in environmental protection, she questioned the propriety of using large amount of ECF funding to support Environmental Campaign Committee (ECC) projects in the business sector, in particular the funding of \$5 million for the ECC project to support the Campaign on Promoting Domestic Waste Recycling which would duplicate the efforts of the Programme. PS(Env) said that a number of major ECC projects were funded by ECF, including promotional projects on environmental awareness such as the World Environment Day 2006, the Hong Kong Green School Award 2006/07 and 2007/08 etc., which were implemented on a territory-wide basis. On the Campaign on Promoting Domestic Waste Recycling, the Deputy Director of Environmental Protection (1) (DDEP(1)) said that the funding of \$5 million was meant to assist housing estates in the source separation of domestic waste. In addition, owners corporation wishing to implement waste recycling projects within their housing developments but lacked the necessary funding could apply for funds under the Programme, subject to a ceiling.

21. Ms Miriam LAU was also concerned about the high cost of \$6.5 million being allocated to the 2008 Hong Kong Awards for Environmental Excellence. She queried the need to incur such a large amount of money on a promotional project. She considered it necessary for the Administration to ascertain the cost-effectiveness of the funded projects, the outcomes of which should be released for public reference. DDEP(1) said that the 2008 Hong Kong Awards for Environmental Excellence was a combination of recognition and awards schemes for business enterprises which had achieved environmental excellence in respect of energy efficiency, waste reduction and indoor air quality. PS(Env) added that this would subsume the existing 2007 Hong Kong Eco-business Awards and reach out to cover more sectors to encourage greater adoption of environmental management in the community. Apart from ECC, major Chambers of Commerce in Hong Kong and other business and social organizations in Hong Kong were invited to join hands with ECC to organize the Awards Scheme. Professional services were engaged to develop assessment criteria in respect of environmental management performance in different aspects and for various sectors, as well as to support the assessment process. At members' request, the

Admin Administration undertook to provide the details of expenditure and effectiveness, in terms of participation rate etc., of the 14 ECC projects in Annex C to the Administration's paper.

*(Post-meeting note: The required information was circulated to members vide LC Paper No. CB(1) 431/07-08 on 12 December 2007.)*

22. Mr LEE Wing-tat shared the concern about the need to spend several millions of dollars on one promotional project. He also doubted the cost-effectiveness of some of the territory-wide promotional projects involving high publicity cost, which in his view could have been done on a district basis at much lower cost. He considered it necessary for the ECF Committee to justify the high costs for these projects. SEN said that the ECF Committee would conduct a review of the funding for projects and their cost-effectiveness. To encourage participation in concerted efforts on the promotion of environmental protection and conservation, priority programmes would be identified for potential applicants. As regards monitoring, SEN said that the management of ECF was subject to scrutiny by the Director of Audit and advice would be sought from the Independent Commission Against Corruption (ICAC) on the review of the funding criteria.

23. Mr WONG Kwok-hing enquired if assessment had been made on the environmental gains from the funded projects. He was also concerned that the souvenirs and prizes provided to the participants of the projects would result in waste generation. In this connection, he would request that proper advice should be given to the organizers on the need to avoid giving away souvenirs and prizes which might create unnecessary waste. SEN said that different criteria would be adopted to assess the effectiveness of different projects. For projects which required funding by stages, regular reviews would be conducted on their progress before further funding was provided. As regards the giving away of prizes and souvenirs, SEN advised that few ECF funded projects would involve large amounts of souvenirs, and that environment unfriendly practices would be avoided as far as practicable.

24. Noting that a total commitment of \$228 million had been allocated to ECF over the years, the Chairman agreed that there was a need to justify the proposed injection of \$1 billion. She enquired about the management of ECF, the authority for approving funding applications, in particular for ECC projects where expenditure was not subject to stringent monitoring, as well as the monitoring role of environmental groups in the management of ECF. SEN clarified that ECF was not a part of Government expenditure but was established under the ECF Ordinance (Cap 450). It was open to applications by local non-profit making organizations, tertiary institutions and schools. The ECF Committee, which comprised mainly non-officials, had been set up under the Ordinance to advise SEN on the use of funds and to vet proposals for applications of the funds. With the increased funding, there would be a need to review the criteria for approval of funds and assistance would be sought from the Director of Audit and ICAC in this respect.

25. Ms Emily LAU opined that the Administration should also justify the cost-effectiveness of the projects funded by previous injections of \$228 million. While welcoming the review of the criteria for funding of projects, she hoped that these would be set out clearly in the supplementary information to be provided by the Administration. Consideration should be given to opening up the meetings of the ECF Committee to facilitate monitoring by the public. She also suggested that the membership of the ECF Committee should comprise LegCo Members nominated by political parties so that they would report to LegCo on the management of ECF given the sizable injection. In response, SEN affirmed that a review of the criteria for funding of projects and their effectiveness would be conducted. However, the proposed nomination of membership of ECF Committee by political parties might need to be further considered. PS(Env) added that reports on the operation of ECF were submitted to LegCo on an annual basis. She nevertheless undertook to reflect Ms LAU's request for the opening of meetings to the ECF Committee for consideration.

26. Miss CHOY So-yuk held the view that the proposed funding of \$1 billion should be gainfully used for more worthwhile projects, such as those relating to energy efficiency and nature conservation (in the protection of biodiversity), where funding was much needed and not only for promotional purposes. SEN took note of Miss CHOY's views and agreed to take them into consideration.

27. Ms Emily LAU said that she could not support the funding proposal at the present stage but would not object to the proposal being submitted to the Finance Committee (FC) for consideration. She said that the information requested by members at the present meeting should be made available to members before the FC meeting at which the proposal would be submitted and sufficient time should be allowed for discussion as otherwise members would find it hard to support the proposal. As for the timeframe for submission of the funding proposal to FC, SEN said that the requested supplementary information on ECF would be provided to members by mid-December 2007, in time before submission of the proposal to FC on 11 January 2008.

28. The Chairman said that the need for a further meeting to discuss the proposal could be considered upon receipt of the supplementary information from the Administration in mid-December 2007. In concluding, members did not indicate objection to the proposal being submitted to FC for consideration in January 2008.

**VI. 352DS – Harbour Area Treatment Scheme, Stage 2A – Construction of advance disinfection facilities at Stonecutters Island Sewage Treatment Works**

(LC Paper No. CB(1) 283/07-08(07) — Administration's paper on 352DS – Harbour Area Treatment Scheme, Stage 2A – Construction of ADF at Stonecutters Island Sewage Treatment Works

LC Paper No. CB(1) 283/07-08(08) — Paper on Harbour Area Treatment Scheme prepared by the Legislative Council Secretariat (Background brief)

29. The Deputy Director of Environmental Protection (2) (DDEP(2)) briefed members on the Administration's proposal to upgrade the project "352DS – Harbour Area Treatment Scheme (HATS), Stage 2A – Construction of advance disinfection facilities (ADF) at Stonecutters Island Sewage Treatment Works (SCISTW)" at an estimated cost of about \$110 million. The relevant proposal would be submitted to the Public Works Subcommittee (PWSC) for consideration and FC for approval in due course.

30. Miss CHOY So-yuk reiterated her grave concern about the use of chlorination/dechlorination for disinfection under HATS Stage 2A lest this would have adverse effect on the marine ecology. However, as the Administration was not prepared to go for secondary biological treatment at the present stage and there was a need to resolve the pollution problem at the Tsuen Wan beaches, the use of chlorination/dechlorination for disinfection seemed to be the only way out. In this connection, she enquired about the disinfection cost of effluent per tonne and whether studies had been made on new disinfection technologies. She would also like to know the cost for decommissioning of the disinfection facilities in the event that secondary biological treatment was subsequently implemented and disinfection using chlorination/dechlorination was no longer required.

31. The Chief Engineer (Harbour Area Treatment Scheme) (CE(HATS)) said that even with the upgrading of sewage treatment to secondary level, disinfection facilities would still be required in order to keep bacteria levels within the prescribed limits at all times. The use of chlorination/dechlorination for disinfection would increase the sewage treatment cost by 15 cents per tonne. The Drainage Services Department (DSD) had been keeping abreast of the latest development in sewage treatment technologies and exchanging views with the trades. Tests would be performed on the feasibility of new treatment methods as appropriate.

32. Miss CHOY So-yuk was disappointed to learn that disinfection was still required even with the upgrading of treatment levels as she was told by the Administration that the disinfection process could be dispensed with when secondary treatment was applied. The Assistant Director (Water Policy) (ADEP(WP)) said that there might be some misunderstanding as he did not recall the Administration having said that disinfection would not be required with the upgrading of treatment. During previous discussions on the use of Biological Aerated Filter technology for secondary treatment, it was pointed out that disinfection would still be required even though this type of treatment could effectively remove a large amount of bacteria. Only for very high levels of sewage treatment using advance technologies, such as Membrane Biofiltration, could disinfection be dispensed with. However, as the Administration was not contemplating adopting such a very high level of sewage treatment at this stage, disinfection would be required.

33. Miss CHOY So-yuk considered it necessary for the Administration to put in place a mechanism to monitor the marine ecology before and after the application of the chlorination/dechlorination process. If it was found that the marine ecology was adversely affected, arrangements should be made to halt the process. She requested to put on record that the officials responsible for the decision to go ahead with the disinfection option should be held accountable for the consequences. She also enquired about the Administration's plan on the treatment of sludge arising from the HATS project, adding that incineration would be more desirable than disposing of the sludge at landfills. CE(HATS) assured members that there would be close monitoring of the water quality and marine ecology before and after the chlorination/dechlorination process.

34. While supporting the proposed funding for the construction of ADF which would help reduce bacteria levels in the receiving waters and facilitate the early re-opening of the closed Tsuen Wan beaches, Mr WONG Kwok-hing asked how long it would take for the disinfection facilities to have the desired effect on water quality such that the Tsuen Wan beaches could be re-opened. CE(HATS) said that Tsuen Wan beaches were affected by two major pollution sources, namely the sewage discharge from the unsewered areas in Tsuen Wan and the undisinfected effluent discharge from SCISTW under HATS Stage 1. The former could not be resolved unless and until the local sewerage programme was completed while the latter could not be resolved unless disinfection was applied. The Administration would make strenuous efforts to complete the local sewerage programme at Tsuen Wan in tandem with the commissioning of the disinfection facilities in October 2009, so that by then the water quality of the beaches in Tsuen Wan could be significantly improved. When the water quality was confirmed through monitoring to be acceptable for swimming, consideration would be given to re-opening the Tsuen Wan beaches, hopefully by the summer of 2010.

35. As the re-opening of the Tsuen Wan beaches was contingent upon the completion of the local sewerage programme and the commissioning of ADF, Mr WONG Kwok-hing sought an undertaking from the Administration that efforts would be made to complete both projects within the same time frame as otherwise the intended purpose of re-opening the Tsuen Wan beaches could not be served. The Assistant Director (Sewage Services) (AD(SS)) reported on the progress of the local sewerage programme. He said that the construction of sewerage systems along Ting Kau, Tsing Lung Tau and Sham Tseng had commenced since 2000. The Sham Tseng Sewage Treatment Works and the trunk sewer in Tsing Lung Tau were completed in 2004 and 2006 respectively while extension of branch sewers to the unsewered villages in the area was underway. It was expected that by end 2009, the sewerage system in the area would be completed. At members' request, the Administration undertook to provide the time frames within which ADF at SCISTW and the local sewerage programme for the unsewered areas adjacent to the Tsuen Wan beaches were expected to be completed.

Admin

36. Mr Howard YOUNG enquired if the commissioning of ADF alone could resolve the pollution problem of the Tsuen Wan beaches, without having to await the completion of the entire HATS Stage 2A. DDEP(2) advised that of the seven Tsuen

Wan beaches which were closed, three had already been closed due to the effect of pollution from local sources while the other four had been closed following the commissioning of HATS Stage 1.. It was hoped that with the commissioning of ADF together with the completion of the local sewerage programme, the water quality could be significantly improved for the re-opening of all the beaches. CE(HATS) added that it would not be necessary to await the completion of the entire HATS Stage 2A before the needed improvements could be made to the beach water quality.

37. The Chairman drew members' attention to the submission from Dr Albert KOENIG which was tabled at the meeting. In his submission, Dr KOENIG pointed out that even before the implementation of HATS Stage 1, the background *E Coli* level at the Tsuen Wan beaches was already so high that beaches had to be closed because they could not meet the existing water quality objective for bathing beaches. Hence, it was highly unlikely that the beaches could be re-opened even if effluent from HATS Stage 1 contained no *E Coli* at all. She also noted Dr KOENIG's concern about the impact of the chlorination/dechlorination process on the marine environment was shared by many others. She recalled that when the progress of HATS Stage 2A was discussed in January 2007, a deputation had indicated that some members of the Advisory Council for the Environment (ACE) had indicated strong opposition against the use of chlorination for disinfection. It appeared that the Administration's main intent to proceed with the proposal was for the purpose of re-opening the Tsuen Wan beaches.

*(Post-meeting note: The submission from Dr Albert KOENIG was circulated to members vide LC Paper No. CB(1) 337/07-08(1) on 26 November 2007.)*

38. DDEP(2) said that there were divergent views on the choice of sewage treatment and disinfection. Under the Environmental Impact Assessment (EIA) study, various disinfection technologies had been examined and it was concluded that chlorination was the preferred option which would allow for the early commissioning of ADF and the re-opening of the Tsuen Wan beaches. The outcome of the EIA study was reported to ACE which had endorsed the project. CE(HATS) said that the Administration was aware of public concerns over the use of the chlorination/dechlorination process for disinfection of HATS effluent. Within the EIA study period, it had held four consultation meetings with environmental and academic groups to share information and investigation results, to gauge their views and to address their concerns, before finalizing the EIA report which was subsequently endorsed by ACE.

39. Ms Emily LAU remained concerned about Dr KOENIG's allegation that the application of chlorination to the primary effluent from HATS Stage 1 was clearly against the international trend and grossly defied best practicable control technology and professional judgment. According to Dr KOENIG, the EIA report had found that an overwhelming majority of the surveyed sewage treatment works in the world adopted secondary treatment and used disinfection only when needed. Dr KOENIG concluded that disinfection of primary effluent was not a viable alternative, and that early implementation of HATS Stage 2B was a necessity. Ms LAU noted that green groups had also expressed concern about the use of highly toxic chlorine in the form of

industrial bleach as disinfectants lest this might turn the beaches into chlorinated pools, which were detrimental to marine ecology. She questioned why ACE could have endorsed the EIA report for ADF.

40. DDEP(2) said that the Administration had exchanged views with Dr KOENIG on the present proposal. Before deciding to apply for funding for the construction of ADF, the Administration had made reference to practices in other countries and consulted both local and overseas experts in the field. The EIA study confirmed the need for disinfection in order to reinstate the water quality at the Tsuen Wan beaches. ADEP(WP) said that there was a need to provide disinfection for effluents from HATS Stage 1 so that the Tsuen Wan beaches could be re-opened as early as possible. The chlorination/dechlorination process was found to be the only viable option that would allow the early commissioning of the disinfection facilities and re-opening of the Tsuen Wan beaches given the time, land and planning constraints. In general, chlorination would not discharge any significant toxic chemicals as this was followed by dechlorination to remove residual chlorine in the effluent. Therefore, there would not be any impact on the marine environment. In any event, ACE had specifically requested more frequent monitoring of key pollutant parameters in the effluent and receiving waters and an automated monitoring system would be put in place. He also noted that Dr KOENIG had mentioned about the trend toward adopting a higher level of sewage treatment in the Mainland. He clarified that according to the Administration's understanding, the Mainland authorities had delegated to local jurisdictions the authority to establish functional use zones for coastal and other waters and there were different standards for such zones. Sewage treatment was planned to meet these standards. For sewage treatment works situated inland with very little dilution of discharges, they would need to adopt high levels of treatment to meet the water quality standards. However, many of the sewage treatments works in the coastal areas, where they existed, still adopted lower levels of treatment.

41. CE(HATS) added that in conducting the EIA study, DSD had made reference to the sewage treatment levels adopted by 132 sewage treatment works in 24 coastal cities around the world. The study revealed that the level of sewage treatment adopted by each sewage treatment works was very plant-specific, that was to say, the level of treatment would take into account the location of the plant, the quality of the effluent and the assimilative capacity of the receiving water bodies. The levels of sewage treatment varied from primary to secondary treatment. The use of chlorination for disinfection was in fact quite common in the Mainland for both primary and secondary sewage treatment works. The EIA report concluded that the environmental impact of the project could be controlled within the prescribed limits and would not affect the marine ecology.

42. Noting the new trend of using nano tubes to purify water and the related studies on nanotechnology conducted by the Hong Kong University of Science and Technology, Mr SIN Chung-kai enquired if nanotechnology could be adopted for sewage treatment on a commercial scale. He also requested a cost comparison between the use of nanotechnology and the existing method in sewage treatment and disinfection. CE(HATS) said that DSD had been open-minded in the choice of sewage treatment and there had been regular exchanges with the trade and academia

Admin

on the latest technologies for sewage treatment. However, given the exceptionally large scale of treatment under HATS Stage 1 which involved 1.4 million cubic metres of sewage every day, it would not be prudent to adopt any emerging but unproven technology. So far, the application of nanotechnology to wastewater treatment was still at the research and early development stage. It had not been tried out even on a small scale. At members' request, the Administration undertook to provide further information on the technologies, such as nanotechnology, which it had considered before deciding on the use of chlorination/dechlorination for disinfection under HATS and advise on the cost-effectiveness of these technologies.

43. Ir Dr Raymond HO remarked that nanotechnologies were still under the research stage, and had not been proven for application in large-scale sewage treatment plants. He also said that the Administration should have included more information on its justifications for the use of chlorination/dechlorination for disinfection. It should also explain why the chlorination/dechlorination process was preferred over other disinfection options, such as the use of ultraviolet light, as he understood that there had been different schools of thought over the choice of options. DDEP(2) agreed to provide the relevant information prior to the PWSC meeting.

44. In view of the large dosage of chlorine to be used for disinfection, the Chairman requested the Administration to provide the daily amount of chlorine to be consumed. Taking into account members' concern about the adverse impact which the disinfection process might have on the marine environment, the Administration should put in place a mechanism under which the process could be stopped as well as an effective monitoring mechanism to monitor the quality of the receiving waters. She also requested the Administration to provide a breakdown of the project cost of \$110 million and the recurrent cost, as well as the latest progress of HATS Stage 2B. CE(HATS) advised that of the proposed capital funding of \$110 million, about \$87 million would be construction cost while the rest would be mainly consultancy and monitoring costs. A breakdown of these costs would be included in the paper to be submitted to the Public Works Subcommittee. He added that the chlorination/dechlorination process could be stopped at will and a monitoring mechanism would be put in place to assess its impact on the marine environment.

45. Ms Miriam LAU said that Members of the Liberal Party would support the funding proposal as they considered that practicable and effective treatment processes should be put in place as soon as possible for the benefit of the environment.

46. In concluding, the Chairman said that members did not object to the proposal being submitted to PWSC for consideration. Meanwhile, the Administration should include the information requested by members in its submission to PWSC.

*(Post-meeting note: The required information was circulated to members vide LC Paper No. CB(1) 422/07-08 on 11 December 2007.)*

**VII. Any other business**

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

Council Business Division 1  
Legislative Council Secretariat  
14 December 2007