

**立法會**  
**Legislative Council**

LC Paper No. CB(1) 646/07-08  
(These minutes have been seen  
by the Administration)

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**Panel on Environmental Affairs**

**Minutes of meeting**  
**held on Monday, 17 December 2007, at 8:30 am**  
**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 LEE Wing-tat  
Hon Jeffrey LAM Kin-fung, SBS, JP  
Hon CHEUNG Hok-ming, SBS, JP  
Hon Mrs Anson CHAN, GBM, JP
- Members absent** : Hon WONG Yung-kan, SBS, JP  
Hon CHOY So-yuk, JP
- Public officers attending** : **For item IV**
- Ms Anissa WONG  
Permanent Secretary for the Environment
- Mr Carlson K S CHAN  
Deputy Director of Environmental Protection (3)
- Mr PANG Sik-wing  
Principal Environmental Protection Officer (Air Policy)  
Environmental Protection Department
- For item V**
- Ms Anissa WONG  
Permanent Secretary for the Environment

Mr Carlson K S CHAN  
Deputy Director of Environmental Protection (3)

Ms Mary TSANG  
Assistant Director (Cross-Boundary & International)  
Environmental Protection Department

Mr David WONG  
Principal Environmental Protection Officer  
(Cross-Boundary & International)  
Environmental Protection Department

Mr Wilson FUNG  
Executive Director  
Hong Kong Productivity Council

Mr K L TSANG  
General Manager of Environmental Management  
Hong Kong Productivity Council

**For item VI**

Ms Anissa WONG  
Permanent Secretary for the Environment

Mr Carlson K S CHAN  
Deputy Director of Environmental Protection (3)

Mr PANG Sik-wing  
Principal Environmental Protection Officer (Air Policy)  
Environmental Protection Department

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

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

Miss Mandy POON  
Legislative Assistant (1)4

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The Chairman welcomed Mrs Anson CHAN who had joined the Panel on Environmental Affairs.

**I. Confirmation of minutes**

- (LC Paper No. CB(1) 416/07-08 — Minutes of the special meeting held on 9 November 2007  
LC Paper No. CB(1) 417/07-08 — Minutes of the meeting held on 26 November 2007)

2. The minutes of the special meeting and the regular meeting held on 9 and 26 November 2007 respectively were confirmed.

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

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

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

- (LC Paper No. CB(1) 418/07-08(01) — List of follow-up actions  
LC Paper No. CB(1) 418/07-08(02) — List of outstanding items for discussion)

4. Members agreed to discuss the following items proposed by the Administration at the next regular meeting scheduled for Monday, 28 January 2008 -

- (a) Proposed mandatory implementation of the Building Energy Codes;
- (b) Progress of measures to improve air quality; and
- (c) Government efforts in addressing climate change.

It was also agreed that the start time of the meeting should be advanced from 2:30 pm to 1:30 pm to allow sufficient time for discussion.

5. The Chairman reminded members of the special meeting scheduled for 8 January 2008 to receive public views on "Public consultation on banning idling vehicles with running engines". She also drew members' attention to the Administration's request for including a time-critical item on "Provision of sewerage facilities at Tai Po Tai Wo Road and Mang Kung Uk in Port Shelter" in the agenda of the special meeting. Members agreed to discuss the additional item before receiving views from deputations.

**IV. Mandating the use of ultra low sulphur diesel in industrial and commercial processes**

(LC Paper No. CB(1) 418/07-08(03) — Submission from The Chinese General Chamber of Commerce

LC Paper No. CB(1) 418/07-08(04) — Submission from Federation of Hong Kong Industries

LC Paper No. CB(1) 418/07-08(05) — Administration's paper on mandating the use of ultra low sulphur diesel in industrial and commercial processes)

6. The Permanent Secretary for the Environment (PS(Env)) briefed members on the Administration's proposal to mandate the use of ultra low sulphur diesel (ULSD) in industrial and commercial processes and to allow the use of other fuels and technologies as an alternative means to reduce emissions. Subject to members' views, the Administration would prepare the necessary amendments to the Air Pollution Control (Fuel Restriction) Regulations (Cap 311I) with a view to introducing the amendment regulations into the Legislative Council (LegCo) in early 2008 for implementation around mid-2008.

7. Ms Emily LAU enquired if trade associations had been invited to attend the meeting to express their views on the proposal. The Chairman confirmed that invitations had been extended to the Hong Kong General Chamber of Commerce, the Chinese Manufacturers' Association of Hong Kong, the Chinese General Chamber of Commerce (CGCC) and the Federation of Hong Kong Industries (FHKI) but all of them had declined to attend the meeting. Meanwhile, CGCC and FHKI had submitted their written submissions.

8. Ms Miriam LAU noted that 40% of the motor vehicle diesel imported to Hong Kong in the past months had met the specification of Euro V diesel, and that the price difference between ULSD and Euro V diesel was very small. She enquired whether the proposed mandatory use of ULSD in industrial and commercial processes would, in actual case, be extended to Euro V diesel, as it was unlikely for an oil company to import both kinds of fuels. PS(Env) advised that ULSD would remain the statutory standard for vehicle diesel, albeit tax incentives were provided to encourage the switch to the more environment-friendly Euro V diesel. The present proposal would mandate ULSD as the fuel standard for industrial and commercial processes and would allow for the use of alternative fuels and technologies instead of ULSD in such processes if the emission levels of sulphur dioxide, nitrogen oxides and respirable suspended particulates could be kept within the prescribed limits.

9. Ms Miriam LAU pointed out that the light diesel oil currently used in industrial and commercial processes contained 0.5% of sulphur and cost about \$4.247 per litre whereas ULSD contained 0.005% sulphur and cost about \$4.603, representing a price difference of about \$0.35. Under the present proposal, the trades could either switch to use ULSD or adopt alternative fuels/technologies to reduce their emissions, both of which would carry cost implications. She asked if the trades could obtain loans to finance the installation cost. Ms Emily LAU echoed that similar concern

was raised in the submission from FHKI which requested that incentives, such as tax deductions on expenditure on ULSD and interest-free loans etc, should be provided to encourage the trades to adopt ULSD and other necessary emission control installations and technologies.

10. In reply, PS(Env) clarified that excise duty was not imposed on diesel used in industrial and commercial processes. The Deputy Director of Environmental Protection (3) (DDEP(3)) supplemented that the fuel prices referred to by Ms Miriam LAU pertained to that recorded in September 2007 by the Census and Statistics Department. As shown in Annex A to the Administration's paper, there were fluctuations in the import unit price of fuels over the past year. The average price differential between light diesel oil and ULSD was about \$0.20 per litre. As regards the proposed provision of interest-free loans, PS(Env) said that business undertakings which were interested in adopting emission control installations and technologies could apply for loans under the Small and Medium Enterprises (SMEs) Loan Guarantee Scheme to purchase installations to reduce emissions.

#### Enforcement

11. Given that the trades would be allowed to use various means to reduce emissions, Ms Miriam LAU asked how the Administration could ensure compliance with the emission standards by these alternatives. The Principal Environmental Protection Officer (Air Policy) (PEPO(AP)) said that regular inspections were carried out to ensure compliance with the fuel restrictions imposed under the existing legislation. With the passage of the proposed legislative amendment, the business undertaking which chose to adopt various emission control alternatives would need to employ a competent examiner to test and certify, according to the testing methods to be stipulated, that the emissions could be controlled below the specified limits. This should be done before commission of the relevant industrial or commercial processes and every 12 months thereafter.

12. The Chairman enquired about the existing enforcement of fuel restriction. PEPO(AP) said that at present, there was a division within the Environmental Protection Department (EPD) responsible for enforcement work, including fuel restriction. There were very few existing installations which utilized alternative fuels and they had been complying well with the stipulated limits so far. Six regular inspections were made to these installations every year to ensure compliance with the prescribed standards.

13. The Chairman noted that the Customs and Excise Department (C&ED) administered a Marked-ULSD Verification Scheme on End-users to combat illicit fuel activities and to protect government revenue since unlike vehicle fuel which was subject to excise duty, ULSD to be used in industrial and commercial processes was duty-free and had to be coloured with dye marker for identification. She enquired about the role of C&ED in the enforcement of fuel restriction and how this compared with that of EPD. She also enquired whether additional resources would be incurred in implementing the proposal. PS(Env) said that with the implementation of the

proposal, EPD would step up inspections on installations using alternative technologies, collect and test fuel oil samples and investigate complaints received using existing resources. To facilitate enforcement, the trades concerned would be required to keep the certification records made by competent examiners for inspection by EPD. On the role of C&ED in fuel restriction, DDEP(3) explained that C&ED had to ensure that the duty-free Marked-ULSD should only be used in industrial and commercial processes and not as vehicle fuel.

14. Ms Emily LAU noted that FHKI had expressed concern over the supply of competent examiners to conduct test and certification on the compliance of various emission control alternatives. Ms Miriam LAU also enquired about the availability of competent examiners and the details of enforcement. She was concerned whether the alternative technologies adopted by the trades to control emissions could maintain consistent performance standards. PS(Env) replied that competent examiners would include registered engineers in the fields of environmental, mechanical, building services, etc. as defined under the Engineers Registration Ordinance (Cap 409) and there was a ready supply of these experts in the market. PEPO(AP) added that competent examiners would be required to regularly test and certify that emissions were controlled within specified limits. Meanwhile, regular inspections of about six times a year would be made by EPD on installations using special fuels.

#### Emissions from vessels

15. Given that the entire vehicle fleet as well as the industrial and commercial processes in Hong Kong would be using ULSD as fuel, Mr Howard YOUNG enquired whether there was still a need for the import of light diesel oil other ULSD and if not, whether consideration would be given to banning its use. PS(Env) explained that the use of such diesel could not be banned as some of the marine vessels were still using this as fuel.

16. While acknowledging that the Government marine fleet was utilizing ULSD, Ms Emily LAU noted with concern that other vessels and merchant ships not using ULSD had been polluting the environment with excessive emissions. PS(Env) explained that the present proposal would not apply to the marine fleet in Hong Kong. The emission control on merchant ships and vessels was guided by relevant legislation and international regulations. A working group had been set up by the Transport and Housing Bureau, the Marine Department and EPD to study the control of emissions from marine vessels. In light of members' concern, the Administration would endeavour to expedite the study and report the progress to the Panel as soon as possible.

17. Mr SIN Chung-kai was concerned about the pollution by emissions from vessels plying between Hong Kong and the Pearl River Delta (PRD) Region, which were mostly using Mainland fuels of quality which was much inferior to that supplied in Hong Kong. He enquired if the Marine Department would consider mandating the use of cleaner fuels as part of the licence requirements for vessels traveling within Hong Kong waters. PS(Env) explained that the Administration shared the concern

about the pollution by emissions from marine vessels. The working group would look into the matter, including the potential technical difficulties of using cleaner fuels by vessels traveling within Hong Kong waters.

18. Ms Miriam LAU recalled that during the scrutiny of the Merchant Shipping (Prevention of Oil Pollution) Regulations (Cap 413), members had discussed the feasibility of imposing control on emissions from merchant vessels in Hong Kong waters. There was concern that merchant vessels might choose not to enter Hong Kong if such control was imposed. Notwithstanding, consideration could be given to working out a uniform emission standard within the PRD Region such that all vessels within the Region would use fuels of the same standard. According to the Administration, the application of a uniform emission standard was under negotiation. She would like to find out about the progress of negotiation. PS(Env) said that the Marine Department had ongoing liaison with the Mainland authorities on the control of vessels operating within the PRD Region and the Department was a member of the working group set up for the purpose. Ms LAU was of the view that the control of emissions from vessels should best be taken forward by the Director of Environmental Protection (DEP) rather than D of M. She pointed out that such control was common overseas as in the case of requirement for compliance with specified emission standards for vessels entering the Baltic Sea.

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19. Mr SIN Chung-kai agreed that DEP should take the lead in the control of emissions from vessels in Hong Kong, and that concerted efforts with the Mainland authorities should be made to work out joint measures to control emissions within the PRD Region. At the Chairman's request, the Administration undertook to provide information on the working group to control emissions from vessels, including its membership, role and progress of work.

20. In concluding, members did not object to the proposed introduction of the legislative amendment. Ms Emily LAU however emphasized the need to consult the trades and relevant stakeholders on the proposal.

## **V. Promotion of cleaner production in the Pearl River Delta Region**

(LC Paper No. CB(1) 418/07-08(06) — Administration's paper on promotion of cleaner production in the Pearl River Delta Region)

21. PS(Env) briefed members on the Administration's proposal to provide funding to the Hong Kong Productivity Council (HKPC) to launch a five-year Cleaner Production Partnership Programme (the Programme) for promoting cleaner production (CP) technologies and practices among Hong Kong-owned factories in the PRD Region.

22. The Chairman drew members' attention to a submission from the Hong Kong Environmental Industry Association (HKEIA) tabled at the meeting. While supporting the Programme, HKEIA considered that the scope of the Programme

should be expanded to cover other areas. The Executive Director, HKPC (ED, HKPC) explained the main focus of the programme was on air pollution reduction and enhancing energy efficiency. Industry sectors which might have water, waste and other pollution concerns would therefore not be targeted under the proposed Programme. Nonetheless, subject to availability of funds, consideration could be given to continuation and expansion of the scope after completion of the proposed programme at a later stage,.

*(Post-meeting note: The submission was circulated to members vide LC Paper No. CB(1) 467/07-08 on 18 December 2007.)*

23. Ms Emily LAU enquired about the estimated number of Hong Kong-owned factories in the PRD Region which would take part in the Programme. By way of background, PS(Env) said that to expedite the adoption of energy efficiency and CP practices by Hong Kong-owned factories in the PRD Region, EPD commissioned HKPC to launch a CP Technical Support Pilot Project (the Pilot Project) in November 2006. HKPC had completed preliminary CP assessment for the 15 participating factories and worked closely with four of them by providing detailed assessment and assisting them to implement recommended CP measures. In view of the success of the Pilot Project, the Government intended to invest about \$93 million in the Programme to promote CP and facilitate adoption of technologies and practices among Hong Kong-owned factories in PRD Region. The Programme would, by way of awareness promotion activities, provide first-hand knowledge and advice on the adoption of CP technologies and practices for about 15 000 management personnel, owners and operators of factories in the PRD Region. It would also provide on-site assessment services for 800 to 1 000 participating factories, and sponsor some 90 demonstration projects to help demonstrate possible means for factories to adopt practicable CP technologies, as well as the related costs and resultant benefits. In addition, independent verification services would be provided for 500 to 1 000 applications on effectiveness evaluation of CP improvement projects. Participating factories were required to contribute some 50% of the costs for on-site improvement assessment and demonstration projects. These factories could apply for loans guarantee available to SMEs in Hong Kong for the installation of CP equipment.

24. Ms Emily LAU enquired about the number of Hong Kong-owned factories operating in the PRD Region which had applied for funding under the loan schemes for SMEs in Hong Kong. The Chairman also asked if other assistance, apart from the loans schemes for SMEs, would be made available under the Programme to participating factories wishing to install CP technologies. PS(Env) advised that the Programme aimed to raise industries' awareness on the benefits and possible technical means in adopting CP technologies and practices. A number of schemes were already made available to SMEs in Hong Kong which could provide the necessary funding support. At members' request, the Administration would seek to provide the number of Hong Kong-owned factories in the PRD Region which had applied under the loan guarantee schemes for SMEs in Hong Kong for installation of CP equipments.

(*Post-meeting note*: The requested information was circulated vide CB(1) 511/07-08(01) on 31 December 2007.)

25. The Chairman noted while it was said that response to the Pilot Project had been positive, the fact that only four out of the 15 participating factories that had completed preliminary assessment were interested in implementing recommended CP measures seemed to suggest otherwise. DDEP(3) explained that the Pilot Project was operated on a very small scale with a budget of only slightly over \$1 million. Moreover, the four factories had to fully finance the implementation cost of the recommended CP measures. It was hoped that with the cost-sharing arrangement between the Government and participating factories for the on-site improvement assessment and the 90 demonstration projects under the Programme, more factories would be attracted to participate.

26. Ms Miriam LAU was pleased with the successful experience of some of the participating factories in the Pilot Project. She however stressed the need for experience sharing with other factories, in an attempt to promote CP technologies and practices within the respective industries. ED, HKPC said that HKPC had published information brochures and pamphlets on the successful experience gained in the Pilot Project to facilitate sharing of the successful stories to incentivize other factories to adopt CP technologies and practices. Under the Programme, it would also conduct over 500 events, including structured briefings, study missions, training seminars and workshops, conferences and exhibitions, within the PRD Region to promote CP technologies and practices. Emphasis would be placed on the direct economic benefits, such as reduced energy and material consumption as well as improved corporate image, associated with the adoption of CP technologies and practices.

27. Judging from her experience in organizing promotional events, Ms Miriam LAU said that the attendants were often the same group of people who were willing and able to support these events. To ensure the success of the Programme, there was a need to reach out to the smaller enterprises which might not afford the time to attend the promotional events. Consideration should be given to adopting a more proactive approach in using the resources to be made available under the Programme to more widely reach out to enterprises and introduce them to CP technologies and practices.

28. The Chairman agreed that more resources should be allocated to promote CP technologies and practices. She also enquired whether, in addition to economic benefits, Hong Kong-owned factories in the PRD Region could be able to promote themselves through participation in the Programme. PS(Env) said that Hong Kong-owned factories would gain the know-how in reducing energy consumption and air pollutant emissions through participation in the Programme. They could also enjoy direct economic benefits and productivity gains through reducing electricity, fuel and raw material consumption; and this was testified by experiences gained in the Pilot Project. In addition, by adopting CP technologies and practices, it would help improve corporate image as well as enhance competitiveness which in turn assist in the promotion of business. Response from the industry sector had been very positive.

29. While supporting measures to incentivize factories to adopt CP technologies and practices by demonstration projects, Ms Emily LAU suggested that experience sharing activities of these projects should be organized in a way that these would not adversely affect participating factories' operations. Consideration could also be given to presenting them with awards for their achievements in CP. Referring to paragraph 9(d) of the Administration's paper regarding the targeted approach, Ms LAU sought elaboration on the industry sectors which had a good potential for achieving environmental improvement. DDEP(3) explained that the Programme would be targeted at eight industry sectors, namely textiles, non-metallic mineral products, metal and metal products, food and beverage, chemical products, printing and publishing, furniture and paper/paper product manufacturing, which had contributed to air pollutant emissions to various extent and were most likely to yield positive improvement. 90 projects would be selected to demonstrate the effectiveness, actual cost involved and potential financial return of CP technologies through installation of equipment and/or modification of production processes. He said that the cost of demonstration projects would be shared between the Government and participating factories, and the latter would be required to share the findings of the demonstration projects and experience gained with other factories. ED, HKPC added that in selecting participating factories, due consideration would be given to maintaining a balanced participation from all targeted industry sectors and priority would be given to those that operated with production processes that were representative or common to the specific trade sector and had potentials for making improvements in respect of air pollution or energy consumption.

30. While supporting the proposal, Mr Howard YOUNG pointed out that the Programme itself might not be particularly effective in reducing air pollutant emission as some might have hoped, as it was confined to a small number of Hong Kong-owned factories in the PRD Region and for a limited time of five years. PS(Env) said that in order to resolve the pollution problem in the PRD Region, a host of measures to reduce emissions had been implemented on both sides. The purpose of the Programme was however to provide the required technical support and know-how to encourage, promote and facilitate Hong Kong-owned factories in the PRD Region to adopt CP technologies and practices to reduce air emissions. As such, she said that the expected benefits of the Programme were on the greater awareness and readiness of factories. The design of the Programme, which included some 90 selected demonstration projects and verification of the effectiveness of the improvement projects, would help reinforce the participating factories' confidence in investing in CP technologies. The initial quota for verification service was 500 and the number could be increased to 1 000 subject to response.

31. Mrs Anson CHAN held the view that there should be means through which the Administration could assess the effectiveness of the Programme in achieving its improvement targets. PS(Env) said that implementation of CP would render direct economic benefits to the participating factories. This had been demonstrated in the Pilot Project. A Project Management Committee would be set up to oversee the implementation of the Programme. To ensure the best use of public money, credible

mechanisms on monitoring and control, as well as project assessment and overall evaluation of its effectiveness would be put in place. In terms of awareness raising and incentivizing adoption of CP technologies, HKPC would promote the Programme to the management, owners and operators of Hong Kong-owned factories in the PRD Region. The effectiveness of such activities would be reflected by the number of participating factories. Mr Howard YOUNG however pointed out that the improvements to be brought about by the Programme would be quite minimal given that there were over 56 000 Hong Kong-owned factories operating in the PRD Region and only a limited number of them could benefit from the Programme.

32. Ms Emily LAU enquired about the cost breakdown of the Programme and its associated costs. DDEP(3) said that the cost for awareness promotion activities would be \$12.8 million, on-site assessment costs would be \$31.4 million (contribution from the Government would be capped at \$15,000 per project). In addition, costs for conducting demonstration projects would be shared between the Government and participating factories on a fifty-fifty basis, and the estimated public funding required would be around \$20 million (the average contribution of Government funding was estimated to be around \$160,000 per project). Participating factories for demonstration projects would be required to share the findings and experience gained with other factories. Furthermore, provision of verification service would cost about \$17 million which would be borne by the Government. HKPC would contribute around \$11.4 million in terms of professional manpower support, office rental and other ancillary support, and it would require a further funding support of around \$11.8 million for programme management. It was estimated that participating factories would contribute around \$30 million through the cost sharing arrangements for on-site improvement assessment and technology demonstration. The total cost incurred from the Programme, inclusive of Government funding and contributions from HKPC and participating factories, would be around \$134 million. However, there would be no direct subsidy on the cost of hardware or installation of CP production equipment for the exclusive use by the factories concerned. A detailed cost breakdown for implementing the Programme would be provided after the meeting.

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33. The Chairman said that the cost breakdown of the Programme should have been set out in the Administration's paper to the Panel. She then sought elaboration on the cost-sharing arrangements with participating factories. DDEP(3) explained that while the total funding sought for the proposed five-year Programme was \$93.06 million, part of the cost of Programme could be met by participating factories which would contribute around \$30 million through the cost-sharing arrangements for on-site improvement assessment to be provided by HKPC/environmental technology providers. The cost-sharing arrangement was proposed to maintain a balance between government support and participating factories' commitment. Ms Emily LAU however pointed out that this had yet to include the cost incurred by EPD in implementing the Programme.

34. Mr Howard YOUNG opined that there might be a need for the Mainland authorities to mandate the use of cleaner fuels by vehicles. PS(Env) confirmed that the Guangdong Provincial Government (GRG) had plans to progressively tighten the

standard of motor fuels. At present, the standard adopted in Guangzhou and Shenzhen was comparable to Euro III and it was expected that the standard would be further tightened. Ms Emily LAU enquired whether Hong Kong-owned factories had been moving further away from Guangdong since GPG was tightening the environmental performance standards. PS(Env) said that the move of GPG to tighten the environmental performance standards applied to all industries and individual businesses would make their own investment decisions.

35. Mr SIN Chung-kai said that Members of the Democratic Party would support the funding proposal. They considered that the Programme was a useful first step in promoting CP technologies and practices. Further assistance, possibly in the form of a matching grant, should be provided to assist industries in improving their environmental performances.

36. PS(Env) said that with members' support, the Administration would submit the relevant funding proposal for consideration by the Finance Committee at its meeting on 11 January 2008. Members indicated support for the proposal. Ms Emily LAU requested and the Administration agreed to report the progress of implementation of the Programme to the Panel on a yearly basis.

## **VI. A proposal to amend the Air Pollution Control Ordinance (Cap. 311)**

(LC Paper No. CB(1) 418/07-08(07) — Administration's paper on a proposal to amend the Air Pollution Control Ordinance (Cap. 311))

37. PS(Env) briefed members on the Administration's proposal on the imposition of 2010 emission caps on the power generation sector in order to meet the 2010 emission reduction targets of the Hong Kong Special Administrative Region (HKSAR) territory; the introduction of emissions trading as an alternative means for compliance with the emission caps; and the amendment of the appeal provisions to ensure the independent and impartial operation of the Appeal Board under the Air Pollution Control Ordinance (Cap 311) (APCO).

### Capping the emissions of the power sector

38. The Chairman recalled that the two power companies had earlier raised strong objection to the imposition of emission caps. She enquired about the progress of consultation with the power companies on the proposed amendments to APCO. DDEP(3) said that to achieve the 2010 emission reduction targets, emission caps had been imposed on the two local power companies upon the renewal of their respective Specified Process Licences (SPLs) in 2005. To ensure a smooth, timely and transparent implementation of the emission caps for the power sector, the Administration considered it appropriate to stipulate by legislation the maximum quantity of emission permissible for the power plants and allow them to use emissions trading as an alternative means for achieving emission caps. The two power companies had raised no in-principle objection to the proposed legislative amendments

to impose emission caps. The Administration had taken on board some of the comments made by the two power companies, including charges to be imposed on excess emissions. It had been agreed that, for events completely beyond the control of the SPL holder which resulted in excess emissions, the Director of Environmental Protection (DEP) might issue additional and non-transferable emission allowances no more than the excess emissions incurred to the SPL holder at no cost solely for reconciling the excess amount of air pollutants of that concerned year. Further discussion would be held with the power companies before finalizing the proposed amendments. In addition to the regular updating according to individual power plants' respective market share, the overall emission caps for the power sector might also need to be revised in future in view of the need to continuously improve air quality. In case of such revision, the Administration would take into account the need to attain and maintain the relevant air quality objectives; the use of the best practicable means for the prevention of emissions; and whether the emissions would be, or likely to be, prejudicial to public health.

39. Ir Dr Raymond HO held the view that the use of legislative means to enforce emission caps would undermine the on-going negotiations between the Government and the power companies on the Scheme of Control Agreement (SCA). The imposition of emission caps might also result in the increase in the costs of electricity generation, which would likely be transferred to consumers. He opined that there were other means, such as administrative and/or contractual arrangements, which could be used to control emissions. The high-handed approach adopted by the Administration to cap the emissions of the power sector would set a bad precedent for other sectors.

40. In reply, PS(Env) clarified that the negotiations between the Government and the two power companies on the terms of SCA were not related to the amendments as proposed. Under the present proposal, the maximum emission allowed for the power sector together with the methodology for allocation to the individual power plants would be set out in a technical memorandum under APCO. These allowances would be regularly updated according to the power plants' respective market share. The proposal would allow for greater transparency and would facilitate compliance of power companies with the 2010 emission reduction targets. To provide sufficient lead time for power companies to adjust their operation, it was proposed that an advance notice of no less than four years would be given for any changes in the allocation of emission allowances, including that resulted from regular updating. PS(Env) added that the control of emissions were governed under the conditions set out in SPLs. The use of legislative means to impose emission caps was justified because power generation was the single largest source of air pollutants and this would not conflict with the control under SCA.

41. While not opposing to the use of legislative means to impose emission caps which had already been imposed upon the renewal of SPLs in 2005, Ms Miriam LAU enquired whether the emission caps were unilaterally imposed by the Government or negotiable and agreed to between the Government and the power companies. DDEP(3) said that the current emission caps were set by DEP having regard to the

need to achieve the 2010 emission reduction targets which aimed to reduce the emissions of sulphur dioxide, nitrogen oxides (NO<sub>x</sub>), respirable suspended particulates and volatile organic compounds by 40%, 20%, 55% and 55% respectively by 2010 compared to 1997 levels. In setting the emission caps, DEP would have regard to the fuel mix, demand of electricity and availability of the best practicable technology on emission control. The emission caps would be gradually tightened upon renewal of SPLs with a view to meeting the 2010 emission reduction targets. The power companies were required to use the best practicable means for the prevention of emissions. While the power companies were consulted on the emission caps to be imposed, the decision on actual value of the caps to be imposed rested with DEP.

42. Ms Emily LAU questioned why greenhouse gases (GHG), particularly carbon dioxide (CO<sub>2</sub>), were not included in the proposed emission caps to be imposed on the power sector. Noting that the Advisory Council on the Environment (ACE) was consulted on the proposed amendments on 10 December 2007, she asked if the issue of GHG emissions was raised and if so, the outcome of discussion. PS(Env) confirmed that the need for inclusion of CO<sub>2</sub> in the proposed emission caps was raised during the consultation with ACE. While there were general concerns about GHG emissions and their effect on global warming, the Administration considered it not opportune to cap CO<sub>2</sub> emission under the present proposal. This was because the proposed imposition of emission caps was meant to achieve the 2010 emission reduction targets and CO<sub>2</sub> was not part of the targets. Besides, as CO<sub>2</sub> was emitted during power generation using fossil fuels and there was yet no effective means to reduce such emissions, it would pose immense difficulties to the power companies if a stringent emission cap was imposed on CO<sub>2</sub> emission. The power companies would have to adjust their fuel mix to use more alternative fuels, such as natural gas, and to develop renewable energy for power generation. This would have impacts on the cost and stability of electricity supply which would need to be further studied. ACE members had accepted the Administration's rationale for not including CO<sub>2</sub> in the emission caps.

43. Ms Emily LAU was disappointed that despite lengthy discussions on the control of GHG emission by the Legislature on numerous occasions, such as questions and motions at Council meetings and Panel meetings, as well as repeated requests from environmental groups for the replacement of fossil fuels with more environment-friendly fuels for power generation, no action had been taken so far to reduce GHG emissions. It was more discouraging to learn that ACE, being the representative of the public on environmental issues, supported the non-inclusion of CO<sub>2</sub> in the proposed emission caps. She opined that apart from the emission caps on power plants, more stringent measures should be mapped out for the control of GHG. PS(Env) replied that there were divergent views on the need for inclusion of CO<sub>2</sub> in the emission caps to be imposed on power companies, but ACE members had eventually indicated support for the current proposed amendments to APCO. The discussions with ACE were recorded in the minutes of meetings which were made available for public reference through the Internet. On the use of more environment-friendly means for power generation, PS(Env) said that the Administration had been encouraging power companies to use renewable energy for power generation, but it had to be accepted that there were physical and resource constraints in doing so in

Hong Kong. As a means to improve emission performance, the permitted rate of return on all fixed assets of the power companies would be linked to their achievement of emission caps. Given that the Panel would be discussing the "GHG emissions and their effect on global warming" at its next regular meeting on 28 January 2008, Ms LAU requested that ACE members be invited to the meeting to exchange views on the subject. The Chairman said that members could also raise subjects of mutual concerns at the informal meeting with ACE to be held on 4 January 2008.

44. Noting that the NO<sub>x</sub> emission levels had not been significantly reduced over the years, Mr SIN Chung-kai was concerned whether the Administration could achieve the 2010 emission reduction target in this respect. PEPO(AP) said that the HKSAR Government had reached a consensus with GPG in 2002 to reduce emissions of nitrogen oxides by 20% by 2010 compared to 1997 levels. In setting the emissions caps for the power companies, reference was made to the available emission reduction technologies and the potentials for further emission reduction. It was expected that the emission reduction target of 20% for NO<sub>x</sub> could be met by 2010.

#### Facilitating emissions trading

45. Ms Emily LAU recalled that the power companies had indicated that they were not very clear about the implementation details of emissions trading. Expressing similar concerns, Ms Miriam LAU asked if a pilot could be carried out before the actual implementation of emissions trading. PS(Env) said that the HKSAR Government and GPG had agreed to the implementation framework for emissions trading which had gone through adequate consultation with power companies on both sides. DDEP(3) added that there had been a lot of exchanges over the operation of emissions trading, with the last one being held in May 2007 which was attended by most of the power companies in Hong Kong and Guangdong. Emissions trading was currently operated under the Emission Trading Pilot Scheme for Thermal Power Plants in the Pearl River Delta Region (the Pilot Scheme). Power companies could only be able to sell their emission credits after they had met the local emission caps and had taken further measures, such as installation of additional emission abatement facilities or use of cleaner fuels, to reduce emissions below the levels permitted under the emission caps imposed by the relevant authorities. The introduction of emissions trading would allow an alternative means for compliance with emission caps.

46. Mr Howard YOUNG indicated support for the imposition of emission caps on power generation which remained the biggest source of air pollution. On the imposition of a charge of HK\$20,000 per tonne for reconciling the excess emissions over and above the targeted figure, he enquired how the charge was arrived at and whether it conformed to international practices. PS(Env) explained that the emission allowances granted under SPLs could be transferred or traded locally subject to a joint written notification by the concerned SPL holders. For emissions traded with other power plants in PRD, these would be under the coordination of the Pilot Scheme. In cases where the emissions trading partner failed to deliver the emission credits under the Pilot Scheme but due diligence had been exercised by the SPL holder in contracting for and implementing a trading contract, the issue of additional and

non-transferable emission allowance no more than the amount of undelivered emission credits to the SPL holder at a cost of HK\$20,000 per tonne would be allowed, solely for reconciling the excess amount of air pollutants of the concerned year. The cost was set having regard to unit cost incurred in the installation of emission abatement facilities. In setting the level of charges, reference was made to the fines imposed by other countries on excess emissions, such as those imposed by the United States to combat acid rain. The setting of a high charge of HK\$20,000 per tonne for reconciling excess emissions, which would be more expensive than the actual emissions trading cost or the installation cost for abating emissions, was meant to encourage SPL holders to endeavour to reduce emissions. In view of the large tonnage of emissions, the charging by the rate of HK\$20,000 per tonne would be made to the nearest tonne of the emissions.

Amending the Appeal Board provisions

Admin

47. While supporting the amendments to the appeal provisions under APCO, Mr SIN Chung-kai enquired about the composition of the Appeal Board. PEPO(AP) said that to ensure the independent and impartial operation of the Appeal Board under APCO, opportunity was taken to revise APCO by stipulating that public officers would be barred from serving in the Appeal Board, except for a judge or a former judge who might be appointed as the Chairman of Appeal Board. PS(Env) added that there was a pool of board members who would take turns to sit at the Appeal Board hearing. At members' request, the Administration undertook to provide the composition and membership list of the Appeal Board under APCO.

Way forward

Admin

48. Ir Dr Raymond HO considered it necessary that the two power companies should be invited to express their views on the proposed legislative amendments. The Chairman said that representatives from different organizations, including the Hong Kong Electric Company Limited, were invited to attend the Panel meeting on 28 March 2007 to exchange views on the Pilot Scheme. While the CLP Power Company had not attended the meeting, it had provided a written submission on the subject. In gist, both power companies were optimistic that they would be able to meet the 2010 emission reduction targets through improved emission reduction facilities. As such, the need for an additional meeting to receive views from the power companies on the use of legislative means to impose emission caps would need to have the support of other Panel members. As an alternative arrangement, Dr HO requested and the Administration undertook to provide an information paper explaining the operation of the emissions trading pilot scheme, relevant overseas experience on emissions trading, and charging rate for excess emissions.

49. As regards the legislative timetable for the present proposal, DDEP(3) said that the Administration intended to introduce the proposed legislative amendments to APCO into LegCo in February 2008.

**VII. Any other business**

50. There being no other business, the meeting ended at 11:20 am.

Council Business Division 1  
Legislative Council Secretariat  
25 January 2008