

**立法會**  
**Legislative Council**

LC Paper No. CB(1) 1493/11-12  
(These minutes have been seen  
by the Administration)

Ref : CB1/PL/EA/1

**Panel on Environmental Affairs**

**Minutes of meeting**  
**held on Monday, 27 February 2012, at 2:30 pm**  
**in Conference Room 1 of the Legislative Council Complex**

**Members present** : Hon CHAN Hak-kan (Chairman)  
Hon Audrey EU Yuet-mee, SC, JP (Deputy Chairman)  
Hon WONG Yung-kan, SBS, JP  
Hon LEE Wing-tat  
Hon Jeffrey LAM Kin-fung, GBS, JP  
Hon CHEUNG Hok-ming, GBS, JP  
Hon KAM Nai-wai, MH  
Hon Starry LEE Wai-king, JP  
Hon CHAN Kin-por, JP  
Hon IP Wai-ming, MH  
Hon Tanya CHAN

**Members absent** : Hon James TO Kun-sun  
Hon Miriam LAU Kin-ye, GBS, JP  
Hon Andrew CHENG Kar-foo  
Prof Hon Patrick LAU Sau-shing, SBS, JP  
Hon Cyd HO Sau-lan

**Public officers attending** : **For item IV**  
  
Dr Kitty POON  
Under Secretary for the Environment  
  
Mr Carlson K S CHAN  
Deputy Director of Environmental Protection (3)  
Environmental Protection Department

Mr MOK Wai-chuen  
Assistant Director (Air Policy)  
Environmental Protection Department

Miss Phidias TAM  
Senior Administrative Officer (Air Policy)  
Environmental Protection Department

**For item V**

Dr Kitty POON  
Under Secretary for the Environment

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

Mr MOK Wai-chuen  
Assistant Director (Air Policy)  
Environmental Protection Department

Mr YAM Yat-shing  
Senior Environmental Protection Officer (Mobile  
Source Control)  
Environmental Protection Department

**For item VI**

Dr Kitty POON  
Under Secretary for the Environment

Miss Amy YUEN  
Assistant Director (Water Policy)  
Environmental Protection Department

Mr Alex NG  
Principal Environmental Protection Officer (Sewerage  
Infrastructure)  
Environmental Protection Department

Mr CHAN Kin-kwong  
Assistant Director (Projects and Development)  
Drainage Services Department

Mr TAI Wai-man  
Chief Engineer (Consultants Management)  
Drainage Services 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)1

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- I. Confirmation of minutes**  
(LC Paper No. CB(1) 966/11-12 — Minutes of the meeting held on 21 December 2011)

The minutes of the meeting held on 21 December 2011 were confirmed.

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

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

LC Paper No. CB(1) 984/11-12 — Referral from the Public Complaints Office regarding the new Product Responsibility Scheme for Waste Electrical and Electronic Equipment, the extension of the Environmental Levy Scheme on Plastic Shopping Bags, and the extension of the South East New Territories Landfill (Restricted to Members); and

LC Paper No. CB(1) 1058/11-12 — Referral arising from the meeting between Duty Roster Members and "群峰教育中心環境關注組" regarding the development of the Integrated Waste Treatment Facilities (Chinese version only) (Restricted to Members)

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

(LC Paper No. CB(1) 1119/11-12(01) — List of follow-up actions

LC Paper No. CB(1) 1119/11-12(02) — List of outstanding items for discussion)

3. The Chairman said that it was agreed at the regular meeting in January 2012 that the Panel would discuss the progress of key initiatives in the Policy Framework for the Management of Municipal Solid Waste in March 2012, and that deputations should be invited to express views on the subject. Referring to the list of outstanding items for discussion, the Chairman said that the Administration proposed to discuss the subject on "Reduce, Recycle and Proper Waste Management": Progress of the Key Initiatives under the Waste Management Strategy at the next regular meeting scheduled for Monday, 26 March 2012 at 2:30 pm. In response to Ms Audrey EU's question, the Under Secretary for the Environment (USEN) confirmed that the subject in question would cover all the key initiatives, including waste charging. In view of the extensive coverage of the subject, the Chairman suggested and members agreed to extend the meeting time to 6:30 pm to allow sufficient time for discussion. The Administration was also requested to provide the relevant information paper in a timely manner to facilitate reference by members and the public.

4. Referring to a joint submission from nine environmental groups requesting discussion on the environment impacts of the third runway, the Chairman advised that similar subject was discussed by the Panel on Economic Development in the context of Hong Kong International Airport Master Plan 2030 at its meeting on 19 July 2011, during which deputations (including environmental groups) were invited to express their views. He sought members' views on the need to include the subject in the agenda of the regular meeting in April 2012, and whether the nine environmental groups and the Hong Kong Airport Authority should be invited to the meeting. USEN said that any expansion of the Airport would be subject to the statutory environmental impact assessment (EIA) process. The Director of Environmental Protection Department (DEP) together with the Advisory

Council on the Environment would scrutinize environmental impact assessment report submitted by the proponent in accordance with the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). In order not to jeopardize EPD's position and to maintain impartiality in the EIA process, it might not be appropriate for EPD representatives to attend the meeting with deputations.

5. While acknowledging the impartial role of EPD, Mr KAM Nai-wai hoped that EPD could be more proactive in advising how the EIA on the third runway should proceed and the mitigation measures to be taken. He supported that the Panel should hold a discussion on the environmental impacts of the third runway, and that interested parties other than the nine environmental groups should be invited to give views. His views were shared by Ms Audrey EU and Mr WONG Yung-kan who also emphasized the need for EPD to attend the meeting. The Chairman concluded that discussion on the environmental impacts of the third runway would be held in April 2012 and if necessary, the duration of meeting would be extended by an hour to allow sufficient time for discussion.

#### **IV. Controlling emissions of non-road mobile sources**

(LC Paper No. CB(1) 1119/11-12(03) — Administration's paper on controlling emissions of non-road mobile sources

LC Paper No. CB(1) 1119/11-12(04) — Paper on the proposal to control emissions from non-road mobile sources prepared by the Legislative Council Secretariat (background brief)

6. USEN briefly explained the revised proposal for controlling emissions of air pollutants from non-road mobile sources in Hong Kong by highlighting the salient points in the Administration's paper.

7. Mr KAM Nai-wai said that Members belonging to the Democratic Party (DP) supported in principle the introduction of emission control on non-road mobile machinery (NRMM) to help reduce air pollutants. However, he was concerned about the exemption for existing NRMMs already in use before the proposed control requirements came into force. Given that NRMMs were commonly used at airport, container terminals and construction sites, the emissions from which might affect the health of workers and passengers, he enquired about the number of existing NRMMs which would be exempted under the revised proposal, and the expected time taken to phase out these NRMMs. Expressing similar concerns, Ms Audrey EU enquired about the service lives of

NRMMs and whether there were measures to encourage early replacement of existing NRMMs. USEN responded that as a start, the proposed control regime would cover the sale, lease and supply of NRMMs for local use. The Administration would decide on the need to tighten control on existing NRMMs at a later stage taking into account the effectiveness of the control regime, latest development in emission control of existing NRMMs in overseas countries, and feedback from the trades. Besides, existing NRMMs would be subject to natural wastage and their new replacement would be subject to control. The Assistant Director of Environmental Protection (Air Policy) (ADEP(AP)) added that there were about 13 500 NRMMs in use in Hong Kong. Of these, about 11 000 were used in construction sites while the rest in port facilities and airport. The service lives of NRMMs were between 10 and 20 years, depending on the conditions of use.

8. Mr CHAN Kin-por noted from the background brief prepared by the Legislative Council Secretariat (LC Paper No. CB(1) 1119/11-12(04)) that the average age and average service life of NRMMs in use in Hong Kong were about eight and 14 years respectively. It would take about six years before these NRMMs were due to retire. As emissions from NRMMs accounted for about 7% and 11% of the local emissions of nitrogen oxides and respirable suspended particulates respectively, he agreed that emission control should apply not only to newly imported NRMMs but also existing NRMMs. Noting that existing NRMMs were required to use ultra low sulphur diesel (ULSD) under the Air Pollution Control Ordinance (Cap. 311), failing which would be subject to penalties, he enquired if spot checks had been conducted to ensure compliance. ADEP(AP) confirmed that apart from spot checks, EPD would also act on receipt of complaints on the emission performance of NRMMs in use. At members' request, the Administration would provide statistics on prosecution against the use of NRMMs.

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9. Mr KAM Nai-wai enquired about the exemption arrangements, feasibility of setting a time frame to phase out the existing NRMMs, and whether consideration could be given to requiring operators to retrofit these NRMMs with emission reduction devices during the interim. The Deputy Director of Environmental Protection (3) said that all NRMMs were required under the law to use ULSD to reduce their emissions. NRMMs already in use before the proposed control requirements came into force would be exempted from the emission compliance requirements. In line with international practice, the proposed control regime would not apply to those very small NRMMs (with power output less than 19 kilowatts) or very large NRMMs (with power output exceeding 560 kilowatts). EPD envisaged that once the control regime was in place, the granting of exemption would be limited to highly specialized equipment such as those involved in boring of tunnels. EPD would also impose suitable conditions for the exemption and keep a record of these

NRMMs to which an exemption was given for identification.

10. Noting that legislative amendments would be required to control the sale, lease and supply of NRMMs for local use, and that owners would be required to notify EPD for exemption of existing NRMMs, Ms Audrey EU opined that opportunity should be taken to include a time frame within which the existing NRMMs should be phased out. Consideration should also be given to requiring existing NRMMs to undergo regular tests to ascertain their emission performance, similar to that applied to vehicles. This would ensure that NRMMs in use would comply with emission compliance requirements and encourage the needed replacement of polluting NRMMs. USEN explained that the control on the sale, lease and supply of NRMMs for local use would be a first step in controlling emissions from non-road mobile sources. EPD would formulate a set of emission standards applicable to NRMMs. In line with overseas practice, existing NRMMs already in use before the proposed control requirements came into force would be exempt from emission compliance requirements. She nevertheless took note of Ms EU's views and would seek advice from technical experts on the feasibility of formulating a set of emission standards for existing NRMMs.

11. Mr WONG Yung-kan enquired whether, in the case of the use of leased NRMMs, the owner or the lessee would be penalized if the NRMMs concerned failed to meet the prescribed emission standards. USEN explained that both the supplier and the user would be held responsible. Under the proposed control regime, suppliers would be required to obtain EPD's approval in respect of emission compliance before selling, leasing or supplying NRMMs (either new or second-hand) for local use. Each piece of approved NRMMs should be affixed with an approval label for identification. Users should only use in specified activities those NRMMs with approval or exemption labels. These requirements had been explained to the trades during public consultation. Mr WONG further enquired about the enforcement actions to be taken against the use of non-compliant NRMMs, and whether the trades were made aware of the penalties involved. ADEP(AP) said that the trades were aware that all NRMMs to be sold or leased and supplied for local use would be required to meet the prescribed emission standards unless exempted, and be approved by EPD and properly labelled.

12. Mr KAM Nai-wai remained of the view that the proposed control regime should be extended to cover existing NRMMs. He said that if the relevant legislation did not provide for control of existing NRMMs, which were the sources of pollution, members might consider moving amendments to such effect. He urged the Administration to consult the trades with a view to including the proposed extension of control to existing NRMMs in the legislation. USEN said that the revised proposal to replace the control on

import with the control on the sale, lease and supply of NRMMs for local use had taken into account stakeholders' concern that about 90% of imported NRMMs were for re-export. EPD had consulted the affected trades on the basis of the current proposal. The Administration planned to implement control on the sale, lease and supply of NRMMs for local use as a first step, and review the situation before deciding on the need for further control on existing NRMMs at a later stage, as part of an ongoing plan to improve the environment.

**V. A proposal to control excessive emissions of petrol and liquefied petroleum gas vehicles**

(LC Paper No. CB(1) 1119/11-12(05) — Administration's paper on a proposal to control excessive emissions of petrol and liquefied petroleum gas vehicles

LC Paper No. CB(1) 1119/11-12(06) — Paper on the proposal to strengthen the control of emissions of petrol and liquefied petroleum gas vehicles prepared by the Legislative Council Secretariat (background brief)

13. ADEP(AP) gave a power-point presentation on the measures to strengthen control of excessive emissions from petrol and liquefied petroleum gas (LPG) vehicles.

*(Post-meeting note: A set of the power-point presentation materials was circulated vide LC Paper No. CB(1) 1189/11-12(01) on 28 February 2012.)*

14. Ms Audrey EU enquired about the basis upon which the funding of \$150 million for providing a one-off subsidy for owners to replace the catalytic converters and oxygen sensors of their LPG taxis and light buses was arrived at. Mr CHAN Kin-por was concerned if the funding of \$150 million was sufficient to replace the catalytic converters and oxygen sensors of the existing fleets of LPG taxis and light buses in Hong Kong. USEN said that the funding of \$150 million was worked out based on the costs of catalytic converters and replacement works for about 18 000 LPG taxis and 3 000 LPG light buses in Hong Kong. The Administration would consider the need for further funding based on the response to the replacement scheme. In response to Ms EU's

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further enquiries on the cost breakdown of and the procedures for the replacement programme, ADEP(AP) said that the cost would vary depending on the size of vehicle. It was estimated that the average cost of catalytic converter of a LPG light bus would be around \$5,000 while the cost of replacement work would be worked out after the tendering exercise.

15. Given the limited service life of 18 months of a catalytic converter, Ms Audrey EU considered the estimated replacement cost of \$5,000 to \$7,000 too high. She was concerned that owners of LPG taxis and light buses would have a hard time in replacing the catalytic converters on a regular basis without the one-off subsidy. She asked if there was room for cost reduction if the replacement was carried out on a large scale. ADEP(AP) said that the cost for replacing the catalytic converter of a taxi would be much lower than that of a LPG light bus because of their smaller engine size. Having realized the implications of aged catalytic converters for driving performance, some owners had already taken the initiative to replace the aged converters of their LPG taxis. In this connection, the Administration would draw up a set of maintenance guidelines for reference by LPG taxi and light bus owners as well as the vehicle repair trade, and would liaise with the Vocational Training Council to offer relevant free training courses to vehicle mechanics. The training costs would be included in the funding for the replacement programme. In reply to Mr WONG Yung-kan's enquiry about the eligibility criteria for the free training courses, ADEP(AP) said that the free training courses would be provided to vehicle mechanics. To facilitate better understanding, the Administration agreed to provide supplementary information on the cost breakdown of the replacement programme before the proposal was submitted for consideration by the Finance Committee.

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16. Mr CHAN Kin-por enquired if the Administration was aware of the pollution problems arising from worn-out catalytic converters when promoting LPG vehicles. ADEP(AP) said LPG vehicles needed to have their catalytic converters replaced regularly in order to keep their emissions at an acceptable level. The Administration had engaged 600 LPG taxis in a trial on the maintenance requirements of catalytic converters, the findings of which had been shared with the taxi trades. As the replacement of catalytic converters and associated components could also help improve fuel economy and enhancing vehicle reliability, both vehicle owners and drivers should welcome the replacement programme. USEN added that the transport trades were well aware of the need for regular replacement of catalytic converters. The proposed replacement programme aimed to tackle the poor maintenance problem of petrol and LPG vehicles that led to excessive emissions, and pave way for the proposed emission control scheme using roadside remote sensing equipment to screen out in-use petrol and LPG vehicles that emitted excessively. She also took note of Mr CHAN's suggestion on the need for more publicity

efforts to promote the benefits of regular replacement of catalytic converters with a view to encouraging owners to regularly replace the catalytic converters and associated components of their LPG taxis and light buses.

17. Mr WONG Yung-kan asked if it was mandatory for owners to replace the catalytic converters of their LPG taxis and light buses. There might also be a need for research in the development of catalytic converters with longer service lives. USEN said that it was estimated that about 80% and 45% of the catalytic converters in LPG taxis and light buses had been worn out respectively. Vehicles owners/drivers who did not make use of the one-off subsidy to replace their worn-out catalytic converters might be caught for emitting excessively by the remote sensing equipment to be introduced after completion of the replacement programme. As regards the service lives of catalytic converters, USEN said that these would vary with vehicles and their conditions. As LPG taxis and light buses tended to run on high mileage, more frequent replacement would be required.

18. Mr KAM Nai-wai was concerned about the supply of catalytic converters if owners of LPG taxis and light buses proceeded with the replacement at the same time. He also stressed the need to ensure a sufficient number of contractors with a good geographical coverage for the provision of replacement services to facilitate timely replacement of catalytic converters within the six-month replacement period. USEN said that the Administration had taken on board the transport trades' request for a reasonable geographical distribution of workshops to make the replacement convenient to LPG taxi and light bus owners. ADEP(AP) added that there should not be any problem with the supply of catalytic converters and associated components because the contractors for supplying the replacement catalytic converters would be required to provide sufficient supply of catalytic converters to meet demand.

19. Given that catalytic converters had to be replaced on a regular basis, Mr WONG Yung-kan stressed the need to ensure the availability of sufficient number of vehicle repair workshops to provide replacement services. To prevent monopolization of the replacement services, Mr KAM Nai-wai opined that measures should be put in place to encourage participation of small and medium-sized repair workshops in the tender exercise. USEN said that vehicle repair workshops with the necessary expertise would be encouraged to take part in the tender for provision of replacement services. Efforts would be made to award a sufficient number of contractors with a good geographical distribution coverage so as to make the replacement more convenient for LPG taxi and light bus owners. ADEP(AP) added that briefings on the tendering procedures would be organized to facilitate participation of small or medium-sized repair workshops to participate. To facilitate better understanding, the Administration would provide supplementary information on the measures to encourage small

and medium-sized repair workshops to participate in the tender exercise. Mr WONG considered that tenders might not be necessary as owners of LPG taxis and light buses should be allowed to have their catalytic converters replaced at any repair workshop and apply for reimbursement later. USEN said that the open tender was meant to ensure the quality of replacement services.

20. Noting that the LPG taxi replacement scheme had been implemented for almost 10 years, Mr KAM Nai-wai said that many LPG taxis and light buses were approaching the end of their service lives. With the emergence of newer and more environment-friendly vehicles (such as electric vehicles), LPG taxis and light buses would eventually be phased out. Hence, it might not be worthwhile to provide a one-off subsidy for owners to replace the catalytic converters of their LPG taxis and light buses. He opined that greater flexibility should be allowed for under-subscription of the replacement programme as some owners chose to replace their LPG vehicles with electric models rather than participating in the programme. USEN said that the one-off subsidy would be drawn down based on the number of LPG taxis and light buses which had their catalytic converters and associated components replaced. While the taxi trades were encouraged to try out the use of electric taxis, it would be unlikely that electric taxis could be used on a large scale in Hong Kong in the near future.

21. The Chairman said that owners of LPG taxis and light buses, particularly those individual owners, might be reluctant to replace their catalytic converters given the high replacement cost of \$5,000 to \$7,000 and the limited average service lives of 18 months. He enquired if taxi owners and trade associations had been adequately consulted on the replacement programme, and whether measures would be put in place to ensure that vehicle owners would replace their catalytic converters on a regular basis. USEN said that it remained owners' responsibility to properly maintain their vehicles and to replace worn-out engine parts. It was expected that the improvements in fuel economy and vehicle performance would incentivize owners to replace the catalytic converters of their vehicles. Besides, owners who failed to replace their worn-out catalytic converters might be caught for emitting excessively by the remote sensing equipment to be introduced after completion of the replacement programme. ADEP(AP) added that taxi and light bus fleet operators, as well as associations with owners of individual taxis as members had been consulted on the replacement programme. During the consultation, some consultees held the view that the proposed emission limits at two times the relevant vehicle design standards were too lenient, while the transport trades were worried that if the proposed limits were too stringent, they would have to replace their catalytic converters frequently.

22. Mr WONG Yung-kan noted that some Mainland fishing vessels were using natural gas to fuel their engines. He expressed dissatisfaction that unlike the Mainland authorities, the Administration had not provided any incentive schemes to enable fishermen to replace their vessels with more environment-friendly models. USEN said that the one-off subsidy was meant to facilitate the replacement of catalytic converters and associated components of LPG taxis and light buses in Hong Kong before the introduction of roadside remote sensing equipment to screen out in-use petrol and LPG vehicles that emitted excessively. The need for incentives to encourage the replacement of fishing vessels with more environment-friendly models would be dealt with separately.

23. In concluding, the Chairman said that members did not raise objection to the submission of the proposal to the Finance Committee.

**VI. 339DS – North District sewerage, stage 1 phase 2C and stage 2 phase 1 and 353DS – Outlying Islands sewerage, stage 2 – upgrading of Mui Wo village sewerage phase 2 and Mui Wo sewage treatment works**

(LC Paper No. CB(1) 1119/11-12(07) — Administration's paper on 339DS – North District sewerage, stage 1 phase 2C and stage 2 phase 1 and 353DS – Outlying Islands sewerage, stage 2 – upgrading of Mui Wo village sewerage phase 2 and Mui Wo sewage treatment works)

24. The Assistant Director/Projects and Development, Drainage Services Department (AD/P&D, DSD) gave a power-point presentation on the two projects, namely, "**339DS** – North District sewerage, stage 1 phase 2C and stage 2 phase 1" and "**353DS** – Outlying Islands sewerage, stage 2 – upgrading of Mui Wo village sewerage phase 2 and Mui Wo sewage treatment works".

*(Post-meeting note: A set of the power-point presentation materials was circulated vide LC Paper No. CB(1) 1189/11-12(02) on 28 February 2012.)*

25. Mr WONG Yung-kan noted that the relevant District Councils (DCs) would support the early commissioning of the two sewerage projects. He urged the Administration to expedite the construction works and to report the

progress to DCs. Mr Jeffrey LAM concurred with the need to consult DCs and affected villagers. He was concerned about the flooding problems in village areas, and enquired if sewerage improvement works could help prevent the problem. USEN said that DSD maintained close liaison with the relevant DCs in respect of sewerage works. AD/P&D, DSD added that DSD would consult the relevant DCs and village representatives before proceeding with the sewerage improvement works, and that measures would be taken to prevent flooding. He supplemented that the time required for completion of the projects would be affected by geotechnical and underground conditions as well as land constraints. A phased approach would have to be adopted for the sewerage projects having regard to the need for road opening works. Given these constraints, it was expected that **339DS** would take about 48 months to complete, while **353DS** would require a longer time as the upgrading works for the existing Mui Wo sewage treatment works would have to be carried out in stages.

26. Noting that the Yuen's Mansion and associated buildings (Grade 2 Historic Buildings) were located in the vicinity of the works area of **353DS**, the Chairman enquired about the measures to be taken to mitigate the impacts of sewerage works on these historic buildings. The Chief Engineer (Consultants Management), DSD said that the impact of the sewerage project on the Yuen's Mansion would be minimal since they were quite far apart with a distance of about 50 metres. Besides, heavy boring machines would not be required for the excavation works as the sewers would be laid within a depth of three to four metres. Notwithstanding, adequate mitigation measures would be implemented to ensure that there would be no adverse impacts on the historic buildings during the construction phase of the sewerage project. Efforts would also be taken to monitor changes in geological conditions in the vicinity of the Yuen's Mansion during the course of construction works.

27. In concluding, the Chairman said that members did not raise objection to the submission of the proposal to the Public Works Subcommittee.

## **VII. Any other business**

28. There being no other business, the meeting ended at 4:12 pm.