

**Confirmed Minutes of the 135<sup>th</sup> Meeting of  
the Advisory Council on the Environment  
held on 17 July 2006 at 2:30 pm**

**Present:**

Prof LAM Kin-che, S.B.S., J.P. (Chairman)  
Mr James GRAHAM  
Prof HO Kin-chung, B.B.S.  
Mr Peter Y C LEE  
Dr NG Cho-nam, B.B.S.  
Prof POON Chi-sun  
Ms Iris TAM, J.P.  
Prof WONG Tze-wai  
Mr Esmond LEE, J.P. (Secretary)

**Absent with Apologies:**

Prof Howard HUANG  
Prof Paul LAM  
Ms Goretti LAU  
Mr Markus SHAW  
Mrs Mei NG, B.B.S.  
Mr TSANG Kam-lam  
Prof WONG Yuk-shan, B.B.S., J.P.

**In Attendance:**

Dr Mike CHIU, J.P.	Acting Permanent Secretary for the Environment, Transport and Works (Environment)
Mr C C LAY	Assistant Director (Conservation), Agriculture, Fisheries and Conservation Department
Mr P Y TAM	Assistant Director/Technical Services, Planning Department
Ms Monica KO	Principal Information Officer, Environmental Protection Officer (EPD)
Ms Josephine CHEUNG	Chief Executive Officer (CBD), EPD
Miss Sarah NG	Executive Officer (CBD), EPD

**In Attendance for Agenda Item 3 :**

Mr Raymond LEE	District Planning Officer/Kowloon, Planning Department
Mr Kelvin CHAN	Senior Town Planner/Kowloon, Planning Department

Mr MAK Chi-biu	Senior Engineer/Kowloon, Civil Engineering and Development Department
Ms Iris TAM, J.P.	Study Director, City Planning-Maunsell Joint Venture
Mr Eric MA	Deputy Study Manager, City Planning-Maunsell Joint Venture

**In Attendance for Agenda Item 4 :**

Mr Roy TANG, J.P.	Deputy Director of Environmental Protection (3), EPD
Mr C W TSE, J.P.	Assistant Director (Air Policy), EPD
Mr S W PANG	Principal Environmental Protection Officer (Air Policy), EPD

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Action

**Agenda Item 1 : Confirmation of the Draft Minutes of the 134<sup>th</sup> Meeting held on 15 May 2006**

The draft minutes were confirmed without amendment.

**Agenda Item 2 : Matters Arising from the Minutes of the 134<sup>th</sup> Meeting held on 15 May 2006**

2. There were no matters arising from the minutes of the last meeting.

**Agenda Item 3 : Kai Tak Planning Review – Stage 3 Public Participation: Preliminary Outline Development Plan**  
(ACE Paper 13/2006)

3. Members noted that Ms Iris Tam represented the study team in presenting the paper. Mr Raymond Lee briefed Members on the background of the Kai Tak Planning Review. He highlighted that the vision of the draft Preliminary Outline Development Plan (PODP) was to plan for a distinguished, vibrant, attractive and people-oriented Kai Tak development by Victoria Harbour. Ms Iris Tam briefed Members on the land use proposals. She highlighted that after taking into account the feedback from previous public participation programmes, the open space reserved for leisure and recreational use increased to about one-third of the whole area and the land reserved for connecting roads reduced to about 20%. A number of environmental measures were proposed to avoid environmental problems at the outset of land use planning, such as a rail-based development design, a ring road design, a retractable roof for the multi-purpose stadium, a district cooling

system, roadside greening and air ventilation corridors.

4. The Chairman said that the environmental problems of the Kai Tak Approach Channel (KTAC) were a major concern of the Council. He enquired about the latest progress of the proposed mitigation measures. Mr Eric Ma said that the fundamental causes of the problems were the heavy pollution loading accumulated from the vast upstream catchments, poor water circulation and heavy sedimentation. In-depth surveys and assessments had been undertaken to address the problems. Firstly, they had been working closely with the Environmental Protection Department (EPD) and the Drainage Services Department to identify means to upgrade the sewerage infrastructure of the upstream catchments. Secondly, a 600-m wide opening was proposed at the northern end of the ex-runway to improve water circulation. The data obtained from extensive surveys, including pollution loading and hydrodynamic analysis, were used to develop a detailed water quality calibrated model for simulation purposes. The modelling results indicated that the water circulation at KTAC and the Kwun Tong Typhoon Shelter would be significantly improved. Thirdly, a full-scale field test of bioremediation treatment of sediment at a designated area of about one hectare in KTAC had been completed in March this year and the results were positive. On-going monitoring was being conducted to ascertain the sustainability of the treatment performance. Fourthly, further to the odour survey carried out in winter, a more detailed survey in the hot season was being conducted for obtaining the most updated information. Data gathered from all the investigations and analyses would be consolidated into one environmental study to give preliminary indications on the effectiveness of the proposed mitigation measures and whether requirements under the Environmental Impact Assessment (EIA) Ordinance could be complied with.

5. A Member asked whether mechanical dredging had been considered for sediment treatment. Mr Eric Ma said that various technologies, including mechanical dredging and off-site treatment, had been explored. A number of drawbacks were identified, including the high costs, dispersion of pollutants to the surrounding water body and environment during the dredging process and generation of pollutants due to the use of more water and solvents. They had also explored whether the sediment could be dredged and deposited at other locations. However, it would be difficult to identify a site that could accommodate the one million cubic metres of contaminated sediment. Among various treatment technologies, the in-situ bioremediation treatment approach was considered the most appropriate. The Member considered that a mix of dredging and bioremediation methods would be more appropriate for sediment treatment at KTAC as both technologies had their merits and demerits. Mr Ma agreed that some localized dredging might be required but large-scale dredging should be avoided to minimize disturbance to

the huge volume of sediment.

6. In response to the Chairman's question on why the drawbacks of dredging for sediment treatment had not been mentioned in a previous related EIA study discussed by the Council, Mr Eric Ma recalled that the EIA study was on the proposed reclamation of the entire KTAC with untreated sediment. The discussion focused on the possible impacts of reclamation such as biogas which might be generated from the untreated sediment underneath the reclamation area.

7. Upon a Member's enquiry about the details of bioremediation treatment, Mr Eric Ma explained that the sediment at KTAC was very aerobic and generated a lot of sulphate compounds. In order to accelerate the treatment process and minimize the generation of sulphate compounds, calcium nitrate had to be injected into the sediment to provide nitrogen as the oxidizing agent to release organic materials in the sediment. After completion of the chemical process, the sediment would become more stable and the odour problem would be much relieved. The bioremediation treatment was successfully applied at Shing Mun River and Sam Ka Tsuen Typhoon Shelter. It was anticipated that the treatment process for the whole KTAC would take about one to two years. He emphasized that the environmental problems at KTAC would have to be tackled in a comprehensive manner including the bioremediation treatment, control of pollution sources and improvement of water circulation.

8. In response to the Chairman's enquiry about the frequency of further bioremediation treatment based on the experience of Shing Mun River, Mr Eric Ma said that it was anticipated that the treatment had to be carried out again after four years in the first instance and at a longer interval afterwards when the pollution sources were intercepted.

9. A Member cautioned that although the bioremediation treatment was effective in tackling the odour problem at Shing Mun River, it was observed that the injection of calcium nitrate into the sediment had changed the ratio of nitrogen in the water and stimulated the occurrence of red tides. Records showed that the incidents of red tides in Shing Mun River had increased by 15% in the past four years. Thus, very careful environmental assessments had to be conducted on the application of the bioremediation treatment at KTAC.

10. In reply to a Member's enquiry about the water depth of KTAC, Mr Eric Ma said that the water depth varied from about 2 m at the northern end to about 5 m at the southern end due to the difference in the thickness of the sediment. The Member expressed his concern that the sediment from the

water channel underneath the 600-m opening would flush into the northern end of KTAC. Mr Ma said that the northwestern part of KTAC would be deepened to improve the channel flow and there would be a gradual transition of water depth from the gap area to the northern end of KTAC. The hydrodynamic modelling had already taken into account possible sediment movement arising from the opening and the results indicated that there would only be slight sediment movement into KTAC.

11. In response to the Chairman's enquiry about the development of a Metro Park on top of the 600-m opening, Ms Iris Tam said that a piled deck would be provided above the opening gap to maintain the original shape of the ex-runway and it would be thick enough for planting and other activities. A Member considered that the 600-m gap at KTAC would create a significant planning constraint. The proposed location of the Metro Park could not enable the public to enjoy a very good harbour view. He wondered whether the opening of a few smaller gaps would solve the problem. Mr Eric Ma explained that different combinations of different numbers and sizes of gaps had been examined in the preliminary assessment. The opening of a single 600-m gap was found to be an optimum arrangement in terms of circulation improvements and tidal flow of water currents. Ms Iris Tam added that the location of the Metro Park was not confined to the deck above the opening. Alternative sites had been explored but the proposed location was recommended to create a waterfront park in the East Kowloon area.

12. A Member reiterated his view expressed during the last round of consultation that the development plan for Kai Tak should be considered holistically in the context of the overall harbour planning. Mr Raymond Lee said that the review of the overall harbour planning was conducted as an on-going process by respective bureaux/departments, including the locations of major waterfront developments. Based on the studies conducted, Kai Tak was considered an appropriate site for both the cruise terminal and the multi-purpose stadium. While alternative sites for the cruise terminal had been explored, Kai Tak was the only location with expansion opportunities. Land reservation for the cruise terminal at Kai Tak was necessary at this stage and he understood that the Tourism Commission was still considering the proposals for cruise terminal development received in the Expression of Interest exercise.

13. A Member asked whether there were examples in other major cities having their national stadiums in the city centre close to the seafront. Mr Raymond Lee said that according to the study report commissioned by the Home Affairs Bureau, there were quite a number of major stadiums around the world developed in the city centre near the seafront such as the one in Cardiff of the UK. Some examples showed that stadium development was used to

help rejuvenate the old urban areas such as the project in East London area for the Olympic Games in 2012.

14. A Member considered the land use proposals rather fragmented in that Kai Tak would be divided into a number of sub-areas. He was concerned about the proposed location of the hospital surrounded by residential and commercial developments. He considered that the hospital should be located at a corner with direct access to the main road. Ms Iris Tam explained that the site reserved for the hospital was at a corner of Kai Tak near the seafront away from the City Centre. A specific junction road with direct connection to the main road was planned for the hospital.

15. A Member considered it strange to have the secondary access road on the runway near the seafront. Another Member shared his view. Ms Iris Tam explained that the secondary access road was a minor two-lane road for serving local residents and emergency purposes. There would be a 20-m promenade right on the waterfront next to the access road. The relocation of the access road to the centre of the Runway Precinct was not preferred as it would cut across the central boulevard. It was a trade-off between having a minor road near the seafront with a central 30-m wide boulevard for public enjoyment and having a minor road cutting across the middle of the central boulevard. In reply to a Member's enquiry, Mr Eric Ma said that the capacity of the main access road would be adequate to accommodate the traffic flow to the cruise terminal. The usage rate was anticipated to be about 40% of the total capacity based on a preliminary traffic analysis.

16. A Member commented that the road network in the draft PODP comprised many cul-de-sacs which would lead to traffic congestion similar to what happened in Tsim Sha Tsui East. Ms Iris Tam pointed out that cul-de-sacs were purposely built for residential areas to minimize unnecessary cross-district traffic flow and noise impacts on residents. There were ring roads linking the city centre and neighbouring districts. In response to the Chairman's enquiry, Mr Eric Ma said that the road planning concept for Kai Tak was in line with those for other new developments in Hong Kong. In general, cul-de-sacs were planned for residential areas to minimize noise impacts at source and the need for mitigation measures such as noise barriers. Main roads with direct access to other areas were planned for the city centre to enhance efficient traffic flow.

17. The Chairman asked whether the public could get access to the end of the runway to enjoy the beautiful harbour view. Ms Iris Tam said that the public could get access to the landscape deck of the cruise terminal as well as the Runway Park with an area of 5.6 hectare to enjoy the harbour view

along the waterfront. A Member commented that the harbour view along the cruise terminal might be blocked by cruise liners. The Chairman and the Member considered that the seafront runway tip should be reserved for public enjoyment given its commanding view of Victoria Harbour. It was a pity that the exclusive zone of the proposed heliport would occupy the prime site. Ms Iris Tam explained that there had been a lengthy discussion on the location of the proposed heliport and other alternatives had been explored. The runway tip was chosen as it was the only at-grade location which could serve as a cross-boundary heliport for single engine helicopters with appropriate fuel refilling facilities.

18. A Member enquired about the availability of public transport to the Runway Park and direct road connections between Kwun Tong and the park. Mr Eric Ma said that there would be public transport interchanges at the City Centre and Tourism Node to facilitate transportation to the runway area by an environmental friendly transport mode. As regards direct road connections to Kwun Tong, the feasibility of constructing a tunnel or a bridge had been explored. The option of a tunnel was subject to very high costs and difficulty to fulfill fire prevention regulations. The option of an openable bridge or a crossing bridge was considered difficult in view of the marine traffic at the Kwun Tong Typhoon Shelter. Based on the existing public transport network, it took about five minutes to go from Kwun Tong to the Runway Park. Nonetheless, they noted the requests of Kwun Tong residents and would continue to work closely with relevant parties in further exploring the feasibility of constructing a bridge.

19. Upon a Member's enquiry about pedestrian connections to the To Kwa Wan area, Mr Eric Ma said that there would be at-grade crossings to connect To Kwa Wan to the Kai Tak site. As the streets concerned in To Kwa Wan were mainly on private land, at-grade crossings were considered a suitable means at this stage. The Member considered that at-grade crossings were not sufficient in view of the heavy traffic flow of the main roads. He hoped that pedestrian connections to the To Kwa Wan area could be strengthened.

20. A Member asked whether wind performance had been taken into account in drawing up the draft PODP. Ms Iris Tam said that they had obtained the wind data of the area from the Hong Kong Observatory and a preliminary air ventilation assessment had been conducted. The prevailing wind was mainly southeasterly along the runway direction. Air ventilation corridors had been built in the development proposal to enhance general comfort in the street environment. In preparing the layout plan, more detailed consideration would be given to the building design for further widening of the air ventilation corridors to capture the natural sea wind.

21. The Chairman noted that Kai Tak was originally planned as an environmentally friendly city in the late 1990's and he was pleased to see some environmental friendly features in the draft PODP. He asked if more could be done. Ms Iris Tam said that the proposed electric shuttle would provide a connection between the City Centre and the runway area while the population in the City Centre would mainly be served by the Shatin to Central Link. The most appropriate environmental friendly transport mode within Kai Tak was still under consideration. Mr Raymond Lee added that sufficient land had been reserved for accommodating environmental friendly facilities such as the district cooling system. Government departments concerned would investigate the provision of the relevant facilities in the feasibility/implementation stage. The Chairman hoped that the development concept of turning Kai Tak into an environmental friendly city would be retained and further strengthened in the overall infrastructure design such as the provision of an environmental friendly transportation system and district cooling systems.

22. The Chairman summarized Members' comments as follows –

- (a) the Council supported the people-oriented planning concept adopted in the draft PODP;
- (b) the Kai Tak Development should be in line with the Harbour Planning Principles;
- (c) the Council considered that the runway tip should be reserved for public enjoyment given its commanding view of Victoria Harbour and the land use in this area should be carefully considered and reviewed, such as the proposed secondary road along the waterfront of runway south and the proposed heliport at the runway tip;
- (d) the concept of developing Kai Tak into an environmental friendly city should be retained and further strengthened in the provision of infrastructure facilities such as the provision of an environmental friendly transportation facilities and a district cooling system; and
- (e) concerned bureaux/departments should closely monitor the effectiveness of the proposed mitigation measures in addressing the water quality and odour problems at the KTAC and conduct EIA studies to ensure that the water quality and odour level would meet the standards to sustain urban development in the ex-airport site.



**Agenda Item 4 : A Proposal for Reviewing the Air Quality Objectives and Developing a Long Term Air Quality Strategy**  
***(ACE Paper 14/2006)***

23. A Member declared his interest as his company was involved in some tendering arrangements with the two local power companies. The Chairman suggested and Members agreed that he could continue to take part in the discussion at the meeting.

24. Mr C W Tse briefed Members on the proposal of launching a comprehensive study to review Hong Kong's Air Quality Objectives (AQOs) and develop a long-term strategy on air quality. He highlighted that the World Health Organization (WHO) had recently proposed a set of new air quality guidelines (AQGs) for reference by countries. WHO was considering the proposal. The finalized new AQGs might be published in late 2006. In view of the stringency of the proposed new guidelines, the WHO working group had also recommended interim targets for countries to progressively improve the air quality. In Hong Kong, the achievement of the proposed new WHO AQGs would require comprehensive and possibly very drastic measures which would have knock-on effects on a wide policy spectrum.

25. The Chairman said that a Member, who could not attend the meeting, had sent her views on the discussion item to all Members before the meeting and another Member had given his response. The Civic Exchange had also conveyed their views on the subject to all Members before the meeting.

26. In reply to the Chairman's enquiry about the distinctions between the terms "guidelines", "objectives" and "standards" in the context of air quality, Mr C W Tse explained that there were no universally accepted definitions for the terms. In general, air quality guidelines referred to technical advice and recommendations for consideration by different experts, authorities or countries. Air quality objectives were usually linked with action plans leading to the achievement of a set of objectives. Air quality standards were usually used as benchmarks for air quality management. The terms "objectives" and "standards" were interchangeable in some contexts.

27. A Member said that EPD had set up a working group in 1996 to review Hong Kong's AQOs. A sub-working group, with him as one of the members, submitted a report to the working group on the health effects of air pollution after 18 months of research on local and overseas studies. He queried why no follow up actions were taken by the working group or the department. He considered that the existing AQOs established in 1987 were outdated and there was a long delay in the review of AQOs. The timeframe of 18 months for the proposed study was too long. The review should only involve updating of local and overseas studies already available and there was no need to start the study from scratch. He queried the meaning behind the

current Hong Kong AQOs and considered that the standards should be health-based in the light of recent research findings on the adverse effects of air pollution on health. If the objectives were health-based, they should be reviewed regularly as was in the US. On the public engagement process, he considered that new AQOs should be set purely based on scientific data and studies irrespective of social or economic considerations, and thus there was no need to consult the public. However, public engagement would be necessary in planning the control strategy which might affect stakeholders' benefits. The revision of AQOs and planning of the control strategy should go hand-in-hand rather than one after the other.

28. Mr C W Tse said that at the Council meeting held on 9 February 2004, Prof Wong Tze-wai had raised the issue of the AQO review conducted in mid to late 1990s. He referred to the minutes of the meeting which recorded that he explained that the need and justifications for more stringent air quality standards were being reviewed in Europe, the US and Australia. A set of new standards for fine suspended particulates (PM<sub>2.5</sub>) had earlier been adopted in the US but due to the result of a lawsuit, the US Environmental Protection Agency (EPA) was also reviewing the subject. EPD was keeping a close watch on the latest development of various reviews in overseas countries. He highlighted that the working group report recognized the need to tighten up the AQOs but did not recommend any specific levels. In the meantime, the Government had been making strenuous efforts and taking various control measures, both at local and regional levels, to tackle air pollution. On the international developments, the US and EU were still revising the air quality standards and the review results would not be available until late 2007. The proposed new WHO AQGs had yet to be finalized and the full documents were expected to be published later in the year. Thus, it was timely for Hong Kong to conduct a comprehensive study by making reference to the WHO AQGs and review findings in the US and EU which would be available in the coming year.

29. A Member said that though the Hong Kong AQOs appeared generally comparable to the US standards in terms of respirable suspended particulate (PM<sub>10</sub>), there were no standards for fine suspended particulate (PM<sub>2.5</sub>) in the current set of Hong Kong AQOs. The reason for the US to keep the current standards of PM<sub>10</sub> was that they had introduced much more stringent standards for PM<sub>2.5</sub> in 1997. Mr C W Tse explained that the US EPA faced a lawsuit immediately after they introduced the standards for PM<sub>2.5</sub>. The standards were held in abeyance and the case was settled in 2005 only. The US EPA was still reviewing the standards for PM<sub>2.5</sub>, reflecting the complexity of the issue.

30. In response to a Member's question on whether the Hong Kong AQOs should be health-based, Mr C W Tse explained that the Air Pollution Control Ordinance empowered the Government to establish AQOs that should be achieved and maintained in order to promote the conservation and best use

of air in the public interest. Protection of public health was considered one of the major factors, but not the sole factor, to be considered in setting the AQOs. He highlighted the recommendations of the WHO which stated that air quality standards were an important instrument of risk management and environmental policies, and should be set by each country to protect the public health of their citizens. The standards set in each country would vary according to country-specific approaches toward balancing risks to health, technological feasibility, economic considerations, and other political and social factors. This variability would depend on the country's level of development, capability in air quality management and other factors. The guidelines recommended by the working group acknowledged this heterogeneity and, in particular, recognized that when formulating policy targets, governments should consider their own local circumstances carefully before using the guidelines directly as legally based standards. The Member maintained his view that the AQOs should be purely health-based irrespective of political or economic considerations in the best interest of the public. He considered that a set of more stringent objectives like that of the EU should be set and it was not necessary to achieve the objectives in the very short run.

31. Mr Roy Tang recognized the importance of health basis in revising the AQOs. He confirmed the Chairman's observation that the WHO did not mandate any timetable for the achievement of interim or long-term objectives given the very different backgrounds and conditions of different countries. He highlighted that the way forward, as stated in the concluding paragraph of the working group report, was not simply concerned with setting new AQOs or complying with AQOs, but much more with the need for an urgent review of a wide spectrum of issues, including policies for transport, economic development and education, which would contribute to environmental sustainability. The Chairman agreed that a revision of the AQOs could not by itself improve air quality. It had to be achieved through a package of measures, possibly including some drastic ones, to tie in with the targets and objectives.

32. A Member considered that it would be important to assess the implications of the new set of AQOs on the environmental impact assessment (EIA) system. If a set of stringent objectives was adopted, which might not be technically achievable in the interim, there would be serious adverse implications on the projects to be processed under the EIA Ordinance. From the EIA point of view, he would support a set of new AQOs which would be achievable and feasible in the local environment. Another Member said that examples in most cities in the US, Australia and western Europe showed that the stringent air quality standards were technically achievable. On top of technological devices, there were also a lot of administrative measures which helped meet the standards.

33. A Member welcomed the review and hoped that the study could be kicked off as soon as possible. He considered that the objectives had to be

achieved in a progressive and realistic manner accompanied by an achievable action plan. The Hong Kong AQOs could not be set at an unrealistic level. He agreed with another Member that it would be important to assess the impacts of the new AQOs on prevailing monitoring mechanisms such as the EIA and town planning processes as well as the air pollution index and forecast system. For example, if a set of very stringent objectives was set, the air pollution index would shoot up and give a very bad or even wrong impression that the air quality of Hong Kong had much deteriorated. A Member disagreed and considered that the setting of AQOs should be straightly a scientific issue based on clinical, toxicological and epidemiological evidence rather than on practical considerations. The community as a whole was paying a very high price in terms of health care costs and life losses due to the adverse effects of air pollution. Thus, it would be worth paying a high price to introduce stringent control measures in order to protect public health.

34. The Chairman said that this was the reason why a thorough public engagement process would be necessary to let the stakeholders and public understand the problems, and the costs and implications involved. Ms Iris Tam considered that early public engagement exercises would be useful as the 18-month review period was too long. Members of the public could be consulted early on the possible options and implications and this would also be an educational process. A Member considered that the setting of new AQOs should not be performed in-house but should involve experts and the stakeholders in the field. Another Member agreed that different stages of public engagement would be necessary to engage the experts, academics, stakeholders as well as the general public throughout the study.

35. A Member said that the issue of AQO review had been discussed for many years. To achieve the targets of improving air quality, a road map on implementing the initiatives and measures would be necessary in order to take forward the proposals in the right direction. Funding resources from the Government would be required to provide incentives and assistance in view of the seriousness of the problem. Another Member agreed that a road map would be necessary. He was disappointed that a long time had been taken for studies after studies and too little had been done to tackle air pollution. He considered the timeframe of the proposed study too long and the plan too loose. Interim targets should be set with reference to the interim targets recommended by the WHO in order to tackle the problem in a progressive manner.

36. Mr C W Tse clarified that the Government was determined to tackle the problem and had been making strenuous efforts without losing any time while monitoring the international developments. Improvement of air quality topped the Government's agenda. The power companies had indicated that the Government's timetable for them to install emission reduction facilities was too tight. A Member said that there had been a

continuous postponement of the installation of flue gas desulphurization systems at a power generation plant. In view of the public interest and seriousness of the problem, the Government should provide the necessary financial resources for early installation and negotiate with the particular power company the payment at a later stage. Mr Tse explained that the crux of the matter was not financial resources but the time required. The power company opined that the time allowed for installing the facilities and introducing emission reduction measures before 2010 was too short. Nonetheless, the Government was determined to achieve the 2010 emission reduction targets and had proposed to impose heavy penalties in the post-2008 regime under the Scheme of Control Agreement if it could not complete the installation works within the required timeframe.

37. Mr C W Tse further explained that the new WHO AQGs were much more stringent than the current Hong Kong AQOs. Even if the emissions in Hong Kong were to be eliminated completely, the new WHO AQGs still might not be met. The achievement of the new WHO AQGs would thus require comprehensive and possibly very drastic measures to be taken not only in Hong Kong but also in the Mainland in the long run. Adopting these measures would have far reaching impact on a wide range of policy areas and the people's way of life. In a recently published consultation document, the UK Government considered it not practical to fully achieve the recommended WHO guideline values anywhere in the UK up to 2020. For some air pollutants, such as PM<sub>2.5</sub>, it was expected that the targets would probably be met in 2050 for general stations but still not for roadside stations. He stressed that even achieving the interim targets recommended by WHO would require major actions to be taken and changes in the whole community. Thus, a comprehensive study followed by a thorough public engagement process would be necessary to examine in detail the measures and options available as well as the costs and implications.

38. The Chairman agreed that the review of AQOs should be accompanied by an overall long-term air quality strategy and aligned with complementary policies in other policy areas. A Member suggested the Administration consider the issue from the perspectives of environmental regulation of power plants, traffic management, total vehicular population, marine fuel quality and more creative measures to reduce vehicular sources of pollution.

39. A Member said that while the AQOs would address the problem at the localized level, the problem had to be tackled at the regional level. He suggested adopting the carrying capacity approach, such as total quantity control, in assessing the air quality problem in the Pearl River Delta region. He also suggested the Administration consider seriously whether it would be necessary to establish two sets of AQOs for the roadside air quality level and ambient atmospheric level to tackle roadside and regional air pollution problems respectively.

40. A Member supported the review and the need to develop a long-term air quality strategy. He considered that the Administration was facing many constraints in tackling air pollution as there were always conflicts between economic growth and air quality. It was necessary to involve other policy bureaux in order to achieve the targets, such as the Economic Development and Labour Bureau, when it came to reviewing the fuel mix and alternative sources of power supply.

41. The Chairman summarized Members' comments as follows –

- (a) the Council recognized the utmost importance of improving air quality and considered that the community as a whole should join hands to tackle the common challenge in a forward-looking manner;
- (b) the Council supported the need to review the AQOs with reference to the WHO air quality principles and new AQGs as well as international developments, including whether the existing AQOs should be tightened, whether new air quality parameters such as PM<sub>2.5</sub> should be established and the need to set interim and long-term objectives;
- (c) the Council urged the Administration to kick off the review as soon as possible and expedite the review process as well as to closely monitor the latest international developments on AQO reviews;
- (d) the Council considered that the review of AQOs should be accompanied by an overall long-term air quality strategy and aligned with complementary policies in other policy areas, such as energy, transport and town planning. A road map on implementing the initiatives and measures would be necessary to achieve the interim and long-term targets;
- (e) the Council considered that the review of AQOs should be conducted in parallel with the formulation of the strategy, thereby saving time required for the process;
- (f) the Council considered that it would be important to assess the health and economic costs of taking the proposed measures as well as the impacts of the new AQOs on prevailing monitoring mechanisms such as the EIA and town planning processes as well as the air pollution index and forecast system;
- (g) the Council considered that Hong Kong should take the lead and show the determination to improve regional air quality in close

liaison with the Mainland authorities; and

- (h) the Council considered that given the public concern about air quality, different stages of public engagement would be necessary to engage the experts, academics, stakeholders and the general public.

42. A Member reiterated his view that the setting of new AQOs was purely a scientific issue and there was no need to engage the public while the planning of the control strategy required public consultation. The timeframe of 18 months for the review was too long. The problem and impacts of local air pollution had been well studied and documented in the past few years and EPD should refer to the reports available without the need to start the exercise again.

43. Mr Roy Tang explained that the purpose of the study was not only revising the AQOs, but also identifying the means to achieve them with thorough examination of the technical feasibility, socio-economic impacts, cost-effectiveness of various options and other relevant factors including cross-boundary pollution and impacts on other policy areas.

#### **Agenda Item 5 : Any Other Business**

##### **Public Forum on Air Quality Objective Review**

44. The Chairman suggested and Members agreed that given the public concern about air quality, it would be useful for the Council to hold a public forum on the AQO review in September to facilitate exchanges of views among different sectors.

#### **Agenda Item 6 : Date of Next Meeting**

45. The next meeting was scheduled for 14 August 2006.

(Post-meeting note: The meeting scheduled for 14 August 2006 was cancelled.)

ACE Secretariat  
August 2006