立法會 Legislative Council

LC Paper No. CB(1) 1498/08-09 (These minutes have been seen by the Administration)

Ref: CB1/PS/3/08/1

Panel on Environmental Affairs

Subcommittee on Improving Air Quality

Minutes of meeting held on Thursday, 19 March 2009, at 10:45 am in Conference Room A of the Legislative Council Building

Members present: Hon Audrey EU Yuet-mee, SC, JP (Chairman)

Ir Dr Hon Raymond HO Chung-tai, SBS, S.B.St.J., JP

Hon Miriam LAU Kin-yee, GBS, JP

Hon Andrew CHENG Kar-foo

Hon LEE Wing-tat

Hon KAM Nai-wai, MH Hon Cyd HO Sau-lan Hon CHAN Hak-kan Hon CHAN Kin-por, JP

Member absent : Hon Jeffrey LAM Kin-fung, SBS, JP

Public officers attending

For item II

Mr Edward YAU

Secretary for the Environment

Mr Carlson K S CHAN

Deputy Director of Environmental Protection (3)

Mr MOK Wai-chuen

Acting Assistant Director (Air Policy) Environmental Protection Department

Mr PANG Sik-wing

Principal Environmental Protection Officer (Air Policy)

Environmental Protection Department

Ove Arup & Partners

Mr Alan KWOK Director

Mr Sam TSOI Technical Director

Dr LO Kin-wang Associate

Ms Amanda MO Associate

Mr Paul KENT Senior Economist

Clerk in attendance: Miss Becky YU

Chief Council Secretary (1)1

Staff in attendance : Mrs Mary TANG

Senior Council Secretary (1)2

Miss Mandy POON Legislative Assistant (1)4

I. Confirmation of minutes

(LC Paper No. CB(1) 1056/08-09 — Minutes of the meeting held on 12 February 2009)

The minutes of the meeting held on 12 February 2009 were confirmed.

II. Meeting with the Administration and Consultant

(LC Paper No. CB(1) 1057/08-09(01) — Administration's paper on review

of Hong Kong's Air Quality Objectives and Development of Long-Term Air Quality

Management Strategy

LC Paper No. CB(1) 1074/08-09(01) — A list of environmental legislation

relating to air quality prepared by

the Legal Service Division)

2.. The Subcommittee deliberated (Index of proceedings attached at **Annex**).

- 3. The Administration was requested to -
 - (a) advise the expected number of exceedances if Hong Kong were to adopt the World Health Organization's Air Quality Guidelines;
 - (b) advise the health impacts and medical cost associated with each type of pollutant;
 - (c) provide the methodology and raw data for the cost-benefit analysis in respect of the proposed different emission control measures required to achieve the new Air Quality Objectives (AQOs);
 - (d) include in the cost-benefit analysis tables the costs to be borne by different parties, including the Government, operators and public. To also include the periods within which the costs were expected to be recouped;
 - (e) provide the air model adopted at the Tap Mun Station;
 - (f) provide the minutes of the meetings of the Advisory Panel related to the discussion on the new AQOs;.
 - (g) seriously reconsider the need to amend the Air Pollution Control Ordinance (Cap. 311) to state it clearly that AQOs were set to protect public health; and
 - (h) advise the dates of and names of parties consulted at the last two public fora on the new AQOs.
- 4. <u>Members</u> agreed to discuss the emission reduction measures under Phase I, their cost-benefit analysis and impacts on electricity charges and transport costs at the next meeting scheduled for Thursday, 16 April 2009, at 8:30 am.

III. Any other business

5. There being no other business, the meeting ended at 12:47 pm.

Council Business Division 1
<u>Legislative Council Secretariat</u>
5 May 2009

Panel on Environmental Affairs

Subcommittee on Improving Air Quality

Proceedings of the meeting on Thursday, 19 March 2009, at 10:45 am in Conference Room A of the Legislative Council Building

Time marker	Speaker	Subject(s)	Action required		
Agenda Item I - Co	Agenda Item I - Confirmation of minutes				
000202 - 000220	Chairman	The minutes of meeting on 12 February 2009 were confirmed (LC Paper No. CB(1) 1056/08-09)			
Agenda Item II - M	leeting with the Admin	istration and Consultant			
000221 - 003345	Chairman Mr Alan KWOK Ove Arup & Partners	Power-point presentation by the Consultant (Copies of the power-point presentation materials were circulated under LC Paper No, CB(1) 1133/08-09(01))			
003346 - 003900	Chairman Ms Miriam LAU Mr Alan KWOK Ove Arup & Partners	Ms Miriam LAU's views - (a) the air quality data collected at the Tap Mun Station had shown many cases of exceedances of Air Quality Objectives (AQOs) despite that the station was located far away from local polluting sources. This served to show that the pollution was from external sources, and hence the adoption of a new set of AQOs in Hong Kong might not be able to achieve the desired effect; and (b) there was a need to assess the cost implications and public acceptance of the emission reduction measures Consultant's response - (a) The findings of the computer air quality modelling had confirmed that the new set of AQOs could be met by implementing Phase I measures as a start to improve air quality; and (b) concerted efforts were also required from the Guangdong side to take forward pollution reduction measures to curb emissions from the power, transport and industrial sectors.			
		(b) concerted efforts were also required from the Guangdong side to take forward pollution reduction measures			

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003901 - 004544	Chairman Mr KAM Nai-wai Mr Alan KWOK Ove Arup & Partners	Mr KAM Nai-wai's views/concerns - (a) at the two motion debates on air quality held earlier, members had requested for revising the existing AQOs to meet Euro and World Health Organization (WHO) standards by 2012 and 2015 respectively	
		(b) the Consultant did not recommend amending the Air Pollution Control Ordinance (Cap. 311) (APCO) to include the key parameter of protection of public health in determining AQOs;	
		(c) there was a need to tighten AQOs and to quantify the health costs associated with poor air quality; and	
		(d) the Consultant was trying to use the high costs to discourage the public from demanding for more vigorous measures to improve air quality	
		Consultant's response -	
		(a) consideration could be given to including the parameter of protection of public health in the Technical Memorandum for stipulating AQOs under APCO;	
		(b) a cost-benefit analysis had been worked out for different proposed measures to provide a broad indication on the relative cost-effectiveness of these measures; and	
		(c) it was worth noting that there would not be an impetus to meet AQOs if these were overly stringent and hard to achieve, and hence a progressive approach had been adopted to gradually tighten AQOs in line with WHO Air Quality Guidelines (AQGs)	
004545 - 005402	Chairman Mr LEE Wing-tat Mr Alan KWOK Ove Arup & Partners Administration	Mr LEE Wing-tat's views - (a) there would not be any incentives for further improvement if AQOs were set too low; and	

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		(b) many of the emission reduction measures proposed by the Consultant under Phases I, II and III had already been discussed over a prolonged period but without a definite implementation time table	
		Consultant's response was that about half of the Phase I measures were new measures. Consensus among the Administration, the affected trades and the community would have to be reached before these measures could be implemented	
		Administration's response -	
		(a) protection of public health had to be the key parameter in setting AQOs;	
		(b) the proposed new AQOs were a combination of AQGs and Interim Targets of WHO. About half of the proposed new objectives were already AQGs. As regards those pollutants for which AQGs could not be achieved in one single step, interim targets had been proposed. Nevertheless, achievement of AQGs remained the long-term goal;	
		(c) the cost-benefit analysis provided by the Consultant had set out both the costs of the measures and the monetized health benefits of the resulting air quality improvement. It could help compare the relative cost-effectiveness of the different proposed control measures; and	
		(d) in updating AQOs, however, a pragmatic approach was warranted taking into account factors such as technological readiness, the current level of air pollution, trans-boundary nature of the air pollution problem facing Hong Kong, the cost-benefits of individual measures etc.	
005403 - 010152	Chairman Mr CHAN Hak-kan Mr Alan KWOK Ove Arup & Partners Administration	Mr CHAN Hak-kan's queries – (a) the rationale for adopting different interim targets for different pollutants and not applying an uniform standard; and	

Time marker	Speaker	Subject(s)	Action required
		(b) the Phase for which the Administration would be targeting at based on the cost-benefit analysis	
		Consultant's response -	
		(a) the ultimate goal was to achieve WHO AQGs; and	
		(b) different interim targets were adopted for different pollutants because of the different origins of pollution sources	
		Administration's response that the Consultant had recommended a total of 36 emission reduction measures to be implemented in three Phases. Some of the measures were already in the pipeline while others were new initiatives or involved technologies which were still under development. However, in deciding on the timetable for implementation, the Administration was of the view that those measures that were ready for implementation should be taken forward	
010153 - 011052	Chairman Ms Cyd HO Administration	 (a) emssion reduction potential and cost-benefit analysis should be set out in one table to facilitate comparison; (b) the cost breakdown on emission reduction measures should be further broken down to show the operating cost, cost to be transferred to consumers and cost to be borne by Government, while the benefits should include the health benefits, savings arising from these measures and the cost recovery period. For example, the cost breakdown on the use of ultra low sulphur diesel for local vessels should include the cost incurred by affected operators; and 	
		(c) whether the Administration was prepared to implement emission reduction measures which had a high benefit-cost ratio, such as the early retirement of aged/heavily polluted vehicles	

Time marker	Speaker	Subject(s)	Action required
	peutel	Administration's response - (a) the focus of the cost-benefit analysis conducted by the Consultant was on the economic cost of the proposed measures to the community. The cost might not represent the total cost for pursuing the measures. For example, in the cost evaluation of some measures, such as advancing the replacement of aged vehicles, the analysis had only considered the residual values of the replaced vehicles but not the entire acquisition cost of the replacement vehicles; (b) with the above in mind, the cost-benefit analysis aimed to provide a systematic framework for comparing the cost-effectiveness of different measures; (c) consultation with the affected trades regarding the cost implications would have to be made at a later stage; and (d) some of the measures could also affect the end users. For example, the electricity charge was expected to increase by over 20% from the current level if the ratio of natural gas in local electricity generation was increased to 50%	Action required
011053 - 011557	Chairman Mr CHAN Kin-por Administration	 Mr CHAN Kin-por's views/queries - (a) support for adoption of a progressive approach in tightening AQOs to ensure the new AQOs were most suitable for Hong Kong; and (b) the authority which had the ultimate power to decide on the new AQOs to be adopted; and (c) concerted efforts from the Guangdong side was necessary since air quality in Hong Kong was greatly affected by regional air quality 	

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		Administration's response - (a) the Consultant would conduct a third public forum to solicit the views of the public before finalizing the report of the review for submission to the Administration for consideration; (b) before deciding on the way forward, the Administration would seek views from the public, including the affected parties, on three crucial aspects namely the proposed measures to be adopted, the pace for taking them forward and the price that the community was willing to pay for them; and	
		(c) there was close cross-boundary liaison and cooperation on emission reduction. The committed emission reduction measures for meeting the 2010 emission reduction targets of both the Hong Kong Special Administrative Region and Guangdong Provincial Governments to reduce the emissions in the Pearl River Delta (PRD) Region provided a solid starting point for taking forward the cooperation between the two places. Both Governments would review the progress of these measures. Moreover, consensus had already been reached between both Governments to transform the PRD Region into a green and quality living area. The transformation would help improve the air quality of the PRD Region	
011558 - 012625	Chairman Mr Alan KWOK Ove Arup & Partners Administration Mr Paul KENT Ove Arup & Partners	consulted at the last two public fora on the new AQOs;	The Administration to (a) advise the dates of and names of parties consulted at the last two public fora on the new AQOs; and (b) provide the methodology and raw data for the cost-benefit analysis in respect of the proposed different emission control measures required

Time marker	Speaker	Subject(s)	Action required
		(d) the methodology and raw data for the cost-benefit analysis in respect of the different emission control measures required to achieve the new AQOs	to achieve the new AQOs
		Consultant's response -	
		(a) the Hong Kong Productivity Council had been engaged in organizing the two consultation sessions with the trades/professionals and general public in December 2008 and January 2009 respectively;	
		(b) the cost of the consultancy study on AQOs was about \$6 million;	
		(c) another forum would be held in March 2009 to canvass public views on the preliminary findings before finalizing the consultancy report for the Administration's consideration in June 2009;	
		(d) the methodology adopted for working out the cost-benefit analysis was set out in the footnote of the paper; and	
		(e) the cost-benefit analysis was worked out for a 50-year period. The cost included capital and operating cost of the policy measures. The benefits of pollution control measures were primarily cost savings of a direct nature (principally short and long-term health related cost savings, including the reduced costs of illness and reduced premature mortality, and savings in electricity cost) and indirect nature (principally impacts on workforce and costs of maintenance and repair to buildings arising from material damage caused by air pollutants)	
012626 - 013159	Chairman Mr KAM Nai-wai	Mr KAM Nai-wai's requests -	The Administration to
	Administration	(a) consideration should be given to amending APCO to explicitly provide for the protection of public health in the setting of AQOs and if not, Members belonging to the Democratic Party (DP) would consider moving relevant	(a) seriously reconsider the need to amend APCO to state it clearly that AQOs were set to protect public

Time marker	Speaker	Subject(s)	Action required
		amendments to ensure a more stringent set of AQOs would be set to protect public health;	health; (b) provide the air model adopted at
		(b) the methodology and assumptions used in the cost-benefit analysis, and the air model adopted at the Tap Mun Station;	the Tap Mun Station; (c) provide the
		(c) the minutes of the meetings of the Advisory Panel related to the discussion on the new AQOs;	minutes of the meetings of the Advisory Panel related to the
		(d) the expected number of exceedances if Hong Kong were to adopt WHO AQGs; and	discussion on the new AQOs;
		(e) the health impacts and medical cost associated with each type of pollutant	(d) advise the expected number of exceedances if Hong Kong were
		Administration's response -	to adopt WHO AQGs; and
		(a) the guiding principle for setting AQOs was to protect public health; and	(e) advise the health impacts and
		(b) AQOs to be set would be stringent yet practicable. In fact, about half of the proposed AQOs in the initial findings of the Consultant were at the AQG levels. To a large extent, the proposed new AQOs were comparable with those being adopted by other advanced countries	medical cost associated with each type of pollutant
013200 - 013817	Chairman Mr LEE Wing-tat Administration	Mr LEE Wing-tat's views that the Government should be prepared to provide for the initial 50% funding for the proposed emission reduction measures, given the difficulties in taking forward these measures and that the benefits/returns on investments to improve the environment would take time.	
		Administration's response -	
		(a) The provision of government funding to take forward the measures would have to be discussed in future. Views of the public on the extent to which the community was prepared to pursue and pay for the necessary emission reduction measures would therefore have to be solicited during the public	

Time marker	Speaker	Subject(s)	Action required
		consultation. Among the proposals, funding had already been set aside for some environmental initiatives, such as energy efficiency measures and, to some extent, early retirement schemes for aged/heavily polluting vehicles; and (b) it was committed to taking forward	
		environmental initiatives to improve air quality taking into account public views and the affected parties	
013818 - 014925	Chairman Ms Cyd HO	Ms Cyd HO's requests for -	
	Mr Paul KENT Ove Arup & Partners	(a) cost breakdown and the raw data of the cost-benefit analysis; and	
	Administration	(b) criteria for prioritizing the emission reduction measures	
		Consultant's clarification on the costs incurred in early retirement of aged/heavily polluted vehicles -	
		(a) the cost of early retirement of aged/heavily polluted vehicles was calculated based on the residual value foregone of these vehicles over the remaining period of normal serviceable life; and	
		(b) the upfront capital costs required for procuring the replacement vehicles would be higher than the figures set out in item 2 of the cost-benefit analysis table	
		Administration's explanation -	
		(a) the community's views on the three important questions of "proposed measures, pace and price" would be relevant in deciding the priority of the emission reduction measures;	
		(b) some of the proposed measures, such as the early retirement of aged/polluting vehicles and the district cooling system, were already in the pipeline. Upon receipt of the final report of the Consultant, the Administration would	

Time marker	Speaker	Subject(s)	Action required
		seek the public's views before deciding on the way forward; and (c) the cost of early retirement of aged/heavily polluted vehicles had taken into account the depreciation cost but not the cost of acquiring the replacement vehicles because these old vehicles would need to be replaced eventually	
014926 -020211	Chairman Mr KAM Nai-wai Mr Alan KWOK Ove Arup & Partners	Discussion on the arrangements for the next meeting Mr KAM Nai-wai's request for early discussion on the proposed emission reduction measures Members' agreement to hold the next meeting on Thursday, 16 April 2009, at 8:30 am to discuss - (a) Phase I measures as well as the cost-benefit analysis; and (b) impacts of the emission reduction measures on electricity charges and transport costs Consultant's advice that the next consultation forum would be held on 20 March 2009 at 3:00 pm at the exhibition hall of Hong Kong Productivity Centre at 8 Tat Chee Road, Kowloon	

Council Business Division 1
<u>Legislative Council Secretariat</u>
5 May 2009