

**AIR QUALITY OBJECTIVES (AQO) REVIEW WORKING GROUP
AIR SCIENCE AND HEALTH SUB-GROUP**

**Digest of the 2nd Meeting
held on 19 Sept 2016 at 2:30 p.m.
in Room 1523, East Wing, Central Government Offices, Tamar**

Present:

Ms. Christine LOH	Under Secretary for the Environment (Chairperson), Environment Bureau (ENB)
Mrs. Alice CHEUNG	Deputy Director of Environmental Protection (3) (Vice-chairperson), Environmental Protection Department (EPD)
Prof. Jimmy FUNG	
Dr. Nicky LAM	
Prof. Alexis LAU	
Dr. Roland LEUNG	
Mr. Alfred LEE	
Ir LO Pak Cheong	
Mr. LOONG Tsz Wai	
Dr. Eunice MAK	
Dr. NING Zhi	
Dr. Loletta SO	
Prof. WONG Tze Wai	
Mr. MOK Wai-chuen	Assistant Director of Environmental Protection (Air Policy), EPD
Mr. Terence TSANG	Principal Environmental Protection Officer (Air Science), EPD
Mr. Raymond LEE	Chief Assistant Secretary (Works) 3, DEVB
Ms. Alice PANG	Deputy Project Manager (KLN), CEDD
Ms. Amy CHEUNG	Assistant Director of Planning/Territorial, PlanD
Dr. Eddy NG	Principal Medical & Health Officer (Non- Communicable Disease), DoH

Absent with Apologies:

Prof. Peter BRIMBLECOMBE
Dr. MAN Chi Sum
Prof. TIAN Lin Wei
Prof. WANG Tao
Dr. Steve YIM

In Attendance:

Dr. Kenneth LEUNG	Senior Environmental Protection Officer (Air Science) 4, EPD
Ms. Josephine HO	Acting Senior Environmental Protection Officer (Air Policy) 1, EPD
Mr. Simon LAM	Environmental Protection Officer (Air Policy)

Dr. Jackie NG

11, EPD
Assistant Environmental Protection Officer
(Air Policy) 12, EPD

Chairperson's Remarks

1. The Chairperson welcomed Members to the Second meeting of the Air Science and Health Sub-group.

Agenda Item 1 –Declaration of Interests

2. The Secretariat informed Members that three members of this sub-group had submitted the Form for Declaration of Interest because of their involvement in the bidding of the consultancy study of this AQO review. They abstained from this agenda item pending Members' decision.

3. Members agreed that the successful bidder of the AQO review consultancy study should withdraw from the working group, and that the abstained members could join the discussion on the remaining agenda items as they did not involve decisions on major issues.

4. Mr. LEE Tak-Kong, Alfred, declared his interest of being the director of an environmental engineering company while CLP Power Hong Kong Limited (CLP) and HK Electric (HKE) were their clients.

Agenda Item 2 – Confirmation of Digest of the First Meeting & Matters Arising from Last Meeting

5. Members had no comments on the format of the draft digest of the first meeting. The Secretariat would follow the same format in preparing meeting digest of the forthcoming meetings.

6. The draft digest of the first meeting held on 26 July 2016 were confirmed without amendment.

7. To follow up the matters arising from the first meeting, the Administration highlighted:

(I) Latest development of WHO AQGs

The World Health Organization (WHO) had embarked on a review of its Air Quality Guidelines (AQGs) and would hold the first scoping expert meeting at the end of September 2016. The review process was expected to take a couple of years. By then, the current AQO Review would be completed. Members thus agreed that the current review should benchmark against the 2005/2006 AQGs (Global update), which remained the best available information at the moment.

The Administration would keep Members updated on the progress of WHO's review.

(II) Target assessment year

The Secretariat provided a list of air quality improvement measures proposed by the other three sub-groups in response to a Member's request in the first meeting. The Administration reiterated that the AQO review had a 5-year cycle. The last review set 2020 as the target for attaining the updated AQO. As such, the time-frame for implementing new emission control measures in the current review was proposed to be 2025. Members agreed to adopt 2025 as the target assessment year of this review.

Agenda Item 3 – Initial assessment on the projected compliance situation of prevailing AQO by 2020

8. The Administration briefed Members on an initial projection of the compliance with the AQO for the territory by 2020 based on the existing emission control measures. Near-field simulation results at a pollution hotspot were also presented. In gist, the air quality in areas affected by heavy traffic could still exceed the AQO in 2020 though to a somewhat lesser extent by 2025 if no new policy was introduced to reduce traffic volume and further reduce vehicular emissions. Members should take this into account when assessing the scope for tightening AQOs.

9. Members had the following suggestions/comments:

- (a) the Administration should consider inputting the Inspection & Maintenance (I&M) program of the old vehicles when in the near-field assessment;
- (b) the growth of the vehicle fleet should be assumed after 2020 to match with the reality;
- (c) the impact of promoting the use of electric vehicles should be included in the assessment;
- (d) the effect of new smart city concept and town planning measures to the air quality might not be reflected in the PATH model and should be taken into account in the air quality assessment;
- (e) the control measures in the Mainland should also be included in the assessment;
- (f) the Administration should provide contour maps with another colour scheme to indicate the location which complied with different interim targets (ITs).

10. The Administration's responses were as follows:

- (a) Members' comments and suggestions were welcomed. The suggestions would be considered at the detailed assessment stage;
- (b) the impact of smart city concept on reducing the numbers of in-use vehicles had already been considered in the transport modelling results, which would be implemented in the PATH model.
- (c) The consultant would consider the emission reduction targets proposed in the Mainland's 13th 5-year plan (2016-2020) to project the China emissions while projection of PRD emissions should consider the emission reduction targets proposed by Guangdong Provincial Government's 13th 5-year plan (2016-2020) for environmental protection.

Agenda Item 4 – Introduction on the methodologies and tools for air quality, health and economic impact assessments (AS&H Paper 3/2016)

11. The Administration briefed Members on the proposed methodologies for assessing the air quality.

12. The meeting discussed the reference year to be used for the wind field modelling and emission inventory of the air quality assessment. A Member asked whether Year 2015 could truly represent the typical wind flow field in Hong Kong and suggested adopting different meteorological year and emission year. Some Members opined that the currently available wind field data was quite realistic and not deviated very much from previous years given that the occurrence of typhoon was constant. The meeting agreed to adopt Year 2015 as the wind field modelling year and the base year of emission inventory.

13. The Administration then invited Prof. TW WONG (as EPD's consultant) to introduce the background and methodology of a health and economic impacts assessment tool to Members

14. Members' comments on the methodology were as follows:

- (a) a more holistic tool including analysis of the both short-term and long-term impact of ozone, sulphur dioxide and PM₁₀ to facilitate current AQO review. Prof. WONG responded that the tool was flexible to incorporate any pollutants provided that the relevant data were available. From his experience, the data of relative risk for the long-term effect of PM₁₀ was inadequate. No further comment raised on the consideration of PM₁₀ impact;
- (b) the tool might not be able to quantify the health and economic impacts of those measures which might not reduce the emission directly (e.g. promoting cycling);
- (c) the list of limitations of the tools should be circulated for Members' information;

- (d) the Administration should consider including the observations and difficulties encountered during the preparation of this tool in the Air Science & Health subgroup final report.

15. The Administration reiterated that while the health and economic assessment tool could provide supplementary information to Members, the identification and prioritization of new air quality improvement measures by the other three subgroups would base primarily on their practicability rather than their emission reduction potential, which would encourage more measures to be examined in their subgroups.

Agenda Item 5 – Any other business

16. A Member concerned that VOC reduction measures were not covered in current AQO review. The Administration explained that works were being carried out on VOC emission reduction and more information on it would be reported in the coming working group meeting.

Agenda Item 6 – Date of the next meeting

17. The next meeting would be held on 9 December 2016 (Friday). The meeting was adjourned at 5:10 p.m.