



Environmental Protection Department  
Air Policy Group  
33/F, Revenue Tower  
5 Gloucester Road  
Wan Chai, Hong Kong

30 November 2009

Dear Sirs,

## **Re: Air Quality Objectives Review**

The current Hong Kong Air Quality Objectives (AQO) were last visited almost 20 years ago and a review has long been in need to reflect Hong Kong's complex economic and social evolution. The Hong Kong Institute of Environmental Impact Assessment (HKIEIA) welcomes the Review of AQO as an important opportunity to reduce the threat to public health of the territory. We support moving towards tighter air quality standards in accordance with the World Health Organization (WHO) guidelines and urge the Government to speed up the reduction to meet longer term objectives that suit our specific local situations. The health of Hong Kong people is of paramount importance.

We understand the practical need to balance risks to health, effectiveness of control measures, economic consideration and other political and social factors in working out the implementation programme of the control measures. We are of the view that both proposed approaches to adopt a combination of WHO Interim Targets (ITs) or direct adoption of all WHO Air Quality Guidelines can be implemented. Whichever approach is adopted, it is absolutely necessary and important to set out a well-defined timetable and long term roadmap for the implementation of the pollution control strategies. In order to achieve the new objectives, there is an urgent need to implement control measures that can align to specific air pollution reduction targets and which clean up the air in the territory to improve Hong Kong's quality of life. The roadmap will also let the stakeholders know where they are and what to achieve. The time table is of course essential for planning whether it is by way of radical changes or changes by step, each of which has different financial implication. A good example is the implementation of tightening of vehicle emissions through phased adoption of newer EURO standards.

Although there is no implementation programme presented in the consultation document for the control measures, it is noted from Section 5.1.2 of the Final Report that the proposed 36 emission control measures are assumed to be implemented in three phases with Phase 1 (near Term by 2015), Phase II (Medium Term by 2020) and Phase III (Long Term by 2030). Upon resettling the AQOs, the government must take immediate measures to substantially reduce the emissions for compliance with the new AQOs within the financial and technological constraints in the near to medium term. It is considered that the Phase III timeframe is too long as by 2030 (and realistically much before this date), the WHO would have set even lower standards for compliance. As such, should such measures be deemed to be required to meet the currently proposed AQOs, a faster track programme should be considered.

With the implementation of the new set of AQOs, there will be no doubt challenges in the preparation of future EIA studies for environmental professionals. The proposed AQOs will affect the criteria for evaluating the air quality impact of any control measures that is classified as a Designated Project under the Environmental Impact Assessment Ordinance (Chapter 499) (EIAO). In order to develop the infrastructure that is needed to bring adequate supplies of natural gas to Hong Kong which is one of the control measures for larger point sources, many technical challenges need to be overcome in a timely manner including but not limited to the preparation and approval of the environmental impact assessment report under the EIAO. Given the environmental assessment and the subsequent construction would take considerable time to complete large complex project, we are of the view that the implementation programme for any control strategy need to be realistic for the measure to penetrate into the industry.



We have the following concerns:-

- The AQO consultation document acknowledged that " .... (para. 3.4) the statutory AQOs is a key consideration when the Authority decides on the licence applications of specified processes such as power plants under the APCO, and in assessing whether the air quality impacts of a designated project are acceptable for approval under the EIAO.

Any changes to the AQOs will therefore have major bearing on the operation of specified processes regulated under the APCO and major developments in Hong Kong." However, the consultation document does not mention the implication on the approval of the future EIA studies. Would there be a provision of an exemption clause or a reasonable grace period for the existing operations to comply?

- In the current EIA practice, the consultants have to work out the background level for use in their respective EIAs which in many cases involve a lot of assumptions. If the new AQO become statutory and is to be followed under the EIAO, all the proposed Phase I, II & III measures should assume to be committed measures by the HKSAR Government for the purpose of EIA studies. Unfortunately, no implementation timeframes of these measures were proposed or provided in the consultation document. It will definitely impose uncertainty to the background level prediction in the EIAs. It should not be the responsibility of the project proponents/consultants to review and check the details of the committed territory-wide measures or what are being negotiated or would-be-committed. These territory wide environmental planning issues are outside the purview of individual project proponent putting forward their own projects. The prediction of future background levels could also depend on a large extent on measures and assumptions for air quality control to be adopted in the mainland which are not often accessible to Consultants.

Moreover, the prediction of future background air quality is a tedious process and requires intensive computation and time to achieve the results. It would also be a duplicate of efforts of different Consultants working on different EIAs to derive their own background.

In view of the uncertainty in predicting the background level, would the authority consider update from time to time and publishing a more accurate set of background levels for inclusion in EIAs or to provide upon request as restricted information should it holds the Government in unfavourable position?

- All recent EIA studies require the assessment of cumulative air quality impacts including annual average predictions. However, with reference to the PATH modelling results presented in Appendix I of AQO Review Study Report, the new annual average criteria for PM10 and NO2 could not be achieved at some part of HKSAR including North West New Territories (NWNT) and part of Tsing Yi and Kwai Chung, even with the implementation of all Phase I measures. This implies that any future EIA for projects affecting these exceedance areas would be subjected to strong opposition due to factors outside the control of the project itself. Should a new approach be more useful for the assessment of the cumulative air quality impact or these should be considered as a guideline level rather than statutory criteria? Also, can the use of PATH or other approach be more specific in EIA study brief to remove the uncertainty in the cost implication of doing EIAs which could mean a 30% difference?

If PATH is only way out and becomes the norm to look into the future, it would then be more logical for EPD to compile the data as the baseline. This would make the EIA process more efficient and let the Consultant to do the more value-added sensitivity test on the contribution from the Designated Project they are working on rather than each has to repeat the same process and to ask for the same questions and data from the Authority to build up the baseline case.



- Based on the PATH modelling results presented in the AQO Review Study Report, the new annual average PM10 criteria could not be achieved at a large portion of NWNT even with the implementation of Phase I and Phase II measures in HKSAR. Compliance could only be achieved with the longer term reduction of PM10 emission from the Pearl River Delta Economic Zone (PRDEZ). How do we reconcile annual TSP levels in EIAs for new projects when we have already exceeded the proposed lower baseline levels?
- In accordance with the AQO Review Study, the emissions from PRDEZ play an important role in reducing the cumulative impact in Hong Kong SAR. However, there is apparently no cost benefit analysis in reducing PRDEZ emissions nor solid approach towards solving the regional air pollution problem and on seeking the cooperation from the Pearl River Region as a whole.
- EPD should state its determination to actively reduce the amount of air pollutions both locally and regionally through tighter coordination with the Pearl River Delta administrations and to move steadily towards the WHO AGOs within a specific period. It is equally important to set aside a future regular AQO review mechanism as it is not possible to evaluate the effectiveness of the implemented control measures.
- The issue of urban planning should also be addressed and form part of the control strategy. In order to improve the air quality, we do not only need to reduce emissions from vehicles and larger point sources but we must also facilitate the dispersion of air pollution through effective urban design and building regulations as well as road design and transportation management. Public could definitely benefit from these localized control measures with their effectiveness in reducing air pollution are easily demonstrated through the strategic environmental assessments.

We trust that the Government will take our views into consideration and we will continue our support and work with the Government in formulating the finalized set of Air Quality Objectives for Hong Kong. We look forward to further opportunity of being consulted in any specific technical issues for the benefit of Hong Kong citizen.

Your faithfully,  
For and on behalf of  
Hong Kong Institute of Environmental Impact Assessment

David Yeung  
Chairperson