

**AIR QUALITY OBJECTIVES (AQO) REVIEW WORKING GROUP
ROAD TRANSPORTATION SUB-GROUP**

**Digest of the 3rd Meeting
held on 29 September 2016 (Thursday) at 2:30pm
in Conference Room, 33/F, Revenue Tower,
5 Gloucester Road, Wanchai**

Present:

Ms. Christine LOH

Under Secretary for the Environment
(**Chairperson**), Environment Bureau

Mrs. CHEUNG CHIU Hoi Yue,
Alice, JP

Deputy Director of Environmental Protection (3)
(**Vice-chairperson**), Environmental Protection
Department

Mr. Roger LEE

Mr. Paul LI

Mr. Aaron NG

Mr. LING Chi Keung

Mr. SO Sai Hung

Mr. Madison TANG

Dr. Ringo LEE

Mr. Daniel NG

Dr. HUNG Wing Tat

Ir FUNG Man Keung

Ms. Suzanne Kit Yi CHEUNG

Mr. Evan AU YANG

Mr. MOK Wai Chuen

Assistant Director of Environmental Protection
(Air Policy), Environmental Protection
Department

Mr. Dave HO

Principal Environmental Protection Officer
(Mobile Source), Environmental Protection
Department

Mr. YAM Yat Shing

Senior Environmental Protection Officer
(Mobile Source) 4, Environmental Protection
Department

Ms. LAM Wai Ki, Cordelia

Principal Assistant Secretary for Transport &
Housing (Transport) 2, Transport and Housing
Bureau

Mr. LAU Jun Yan, Alex

Assistant Secretary for Transport & Housing
(Transport) 2B, Transport and Housing Bureau

Ms. PANG Oi Ling, Irene

Assistant Secretary (Infrastructure
Coordination) 1, Development Bureau

Ms. Rachel KWAN

Assistant Commissioner/Bus and Railway,
Transport Department

Mr. David M.W. TSANG

Chief Electrical and Mechanical
Engineer/Vehicle Safety and Standards,
Transport Department

Ms. CHEUNG Yi Mei, Amy

Assistant Director of Planning /Territorial,
Planning Department

Mr. WOO Tai On, Gabriel

Chief Engineer /Land Works, Civil Engineering
and Development Department

Absent with Apologies:

Mr. Matthew WONG

Mr. Stanley CHAING

Mr. TUNG Ching Leung

Ir Dr. David HO

Hon CHAN Choi Hi

Hon KWAN Sau Ling

Mr. Patrick FUNG

In Attendance:

Ms. HO Wing Kam, Josephine

Acting Senior Environmental Protection
Officer (Air Policy) 1, Environmental
Protection Department

Mr. IP Ho Yin, Nelson

Acting Senior Environmental Protection
Officer (Mobile Source) 3, Environmental
Protection Department

Ms. LAM Wai Yin, Lilian

Environmental Protection Officer (Mobile
Source) 12, Environmental Protection
Department

Mr. CHEN Hao Ting, Ambrose

Environmental Protection Officer ((Mobile
Source) 31, Environmental Protection
Department

Mr. SHEK Wing Kei

Environmental Protection Officer ((Mobile
Source) 34, Environmental Protection
Department

Chairperson's Remarks

1. The Chairperson welcomed Members to the third meeting of the Road Transportation sub-group.

Agenda Item 1: Confirmation of digest of meeting

2. The digest of the second meeting held on 28 July 2016 was confirmed.

Agenda Item 2: Discussion on key considerations for the implementation of proposed measures

3. The Chairperson advised that new air quality improvement measures, namely Measure A "Tunnel toll policy and toll collection method", Measure B "Maintenance and repair of vehicle exhaust system" and Measure C "Fostering a "pedestrian-friendly" and "bicycle-friendly" environment", would be discussed in detail during the meeting.

4. The Transport and Housing Bureau (THB) briefed Members on the background information and policy directions relating to Measure A to facilitate Members' discussion and evaluation of the proposed measures.
5. Members discussed in detail the key considerations for two measures under Measure A and five measures under Measure B respectively. Members' comments on the proposed measures and key considerations were summarized in the **Annex**.
6. Due to time constraints, Measure C "Fostering a "pedestrian-friendly" and "bicycle-friendly" environment" would be discussed in the fourth meeting along with Measure D "Promotion of low-emission transport mode". The relevant discussion papers would be distributed for Members' information prior to the next meeting.
7. The Administration said that the Secretariat would revise the draft proformas of the proposed new air quality improvement measures A and B according to the comments made by Members. After that, the amended draft proposal would be issued to Members. If Members had any comments, they could submit them to the Secretariat for further consolidation. The evaluation report with the preliminary conclusions for Measure A and Measure B would be tabled in the fourth meeting for Members to confirm.

Agenda Item 3: Any other business

8. There was no other business.

Agenda Item 4: Date of the next meeting

9. The fourth meeting of the sub-group was tentatively scheduled for 2:30 p.m. on 25 November 2016 (Thursday).
[PMN: the 4th meeting will be held on 6 December 2016 (Tuesday) at 3:00 p.m. at Conference Room, 33/F, Revenue Tower]
10. The meeting was adjourned at 4:40 p.m.

Measure A1 - Review the tunnel toll policy and level (e.g. the Government to buy back the tunnels, tunnel toll subsidy pilot scheme)

Key Considerations	Members' Comment
1. Agreements between the Government and tunnel franchisees	<ul style="list-style-type: none"> ● THB said that among the Road Harbour Crossing (RHCs), Cross-Harbour Tunnel (CHT) and Eastern Harbour Crossing (EHC) are Government owned. Western Harbour Crossing (WHC) would be vested in the Government on the expiry of its Build-Operate-Transfer franchise in 2023. Before that, any adjustment to the toll of WHC would likely require discussion with the franchisee.
2. Ancillary road facilities and their capacity	<ul style="list-style-type: none"> ● To reduce traffic congestion causing excessive emission, the traffic in the RHCs had to be kept smooth. Some Members suggested that the most effective option in the short term was to increase the tolls for the CHT and reduce the toll for the EHC. ● Some members pointed out that while changing the toll rates of individual tunnels could adjust the traffic flow, lowering the toll level might also trigger new traffic volume, causing the overall tunnel usage to rise and aggravating the congestion problem. The impact of toll adjustments on the traffic conditions at the connecting roads should also be assessed. ● Some members suggested that the tunnel tolls should be adjusted according to usage. For example, the tolls of the three RHCs (especially for private cars) during peak hours should be substantially increase to achieve the diversion effect. THB responded that various impacts of the option had to be carefully studied, e.g., whether drivers might speed up or slow down at the time of the day when the toll changed in order to pay lower tolls, causing road safety problems. ● Members suggested that while considering adjusting the tunnel tolls, the Government should also strengthen public education to advise people to use less private cars and encourage the public to take public transport instead of using private vehicles to reduce traffic flow in the tunnels. ● THB said that the Government has been adopting a multi-pronged approach in tackling road traffic congestion. Toll adjustment is one of the measures to achieve traffic diversion.
3. Cost effectiveness	<ul style="list-style-type: none"> ● Some members suggested imposing a higher toll on vehicles with more emissions, though reducing the use of private cars remained the most effective means to reduce traffic.

Key Considerations	Members' Comment
4. Implementation timeframe	<ul style="list-style-type: none"> ● THB advised that they had commissioned a consultancy study on the overall strategy and feasible options for the rationalisation of traffic distribution among the three RHCs. The Government will submit toll adjustment proposals covering the three RHCs to the Panel on Transport of Legislative Council for discussion in the year 2017-18. ● Some members were of the view that the overall strategy and feasible options for the rationalisation of traffic distribution among the three RHCs should only be considered when the Central-Wan Chai Bypass was commissioned and the WHC was returned to the Government. This would be a longer-term arrangement.
5. Public reaction	<ul style="list-style-type: none"> ● Members suggested that the Government should strengthen education and encourage the public to use public transport so as to reduce the use of private cars. THB agreed.

Measure A2 - Consider replacing the existing system with fully automatic toll collection system

Key Considerations	Members' Comment
1. Agreements between the Government and tunnel franchisees	<ul style="list-style-type: none"> ● Members suggested that the Government should open up the market to allow competition among different toll collection systems. THB advised that the "stop-and-go" e-payment facilities would come into operation in phases from mid-2017 to allow drivers to have more choices in toll payment.
2. Ancillary road facilities and their capacity	<ul style="list-style-type: none"> ● Members considered that the automatic toll collection system would reduce vehicle stoppage, thus reduce tailpipe emissions ● Members suggested reviewing the layout and distribution of automatic and manual toll collection systems at toll plazas to help resolve the traffic congestion problem and shorten the journey time during rush hours. THB said that the reason for traffic congestion was due to the saturation of traffic capacity at the RHCs and there was no direct relation between traffic congestion and the toll collection systems.
3. Cost effectiveness	<ul style="list-style-type: none"> ● Some members pointed out that Autotoll was not the only service provider of automatic toll collection system in the market. The cost effectiveness should be estimated by testing various providers as well as different modes of

Key Considerations	Members' Comment
	operation.
4. Implementation timeframe	<ul style="list-style-type: none"> ● No Comment.
5. Acceptability of tunnel users	<ul style="list-style-type: none"> ● Some members considered that privacy issues could be resolved by establishing clear procedures for keeping, using and destroying data and ensuring that the procedures complied with relevant regulations. ● Some members pointed out that the unpopularity of automatic toll collection system could be due to the imposition of administrative charge by Autotoll and that the system was not user-friendly. ● Some members suggested that, if automatic tolling system was to be implemented, a transitional arrangement should be provided to allow vehicles to gradually switch to automatic toll collection system. ● Some members suggested that the Government should also assess whether the adoption of multiple modes of toll collection at the same toll plaza would lead to traffic congestion and chaos.

Measure B1 - Propose to use chassis dynamometer for testing vehicle tailpipe emissions

Key Considerations	Members' Comment
1. Ancillary facilities for vehicle examination (e.g. technical, manpower, space and operational issues)	<ul style="list-style-type: none"> ● No comment.
2. Vehicle owners, vehicle repair trade and public reaction	<ul style="list-style-type: none"> ● Members mentioned that there were different standards in conducting smoke tests in the past but the standards had been unified after the amendments of relevant regulations in 2007. ● Some members considered that the vehicle tailpipe emission testing should be target-oriented and should only require high-emission vehicles to undergo the dynamometer testing. ● Some members considered that the current vehicle inspection and testing programme, which targeted high-emission/ commercial vehicles instead of all vehicles for dynamometer test, was appropriate. The Government should consider analyse vehicle emission data annually to identify high-emission vehicles for formulating target-oriented emission testing.
3. Cost effectiveness	<ul style="list-style-type: none"> ● Some members opined that it was not cost effective to require all vehicles to undergo compulsory annual dynamometer test unconditionally, which would only bring very marginal benefit compared to target-oriented approach, and would incur undue burden to vehicle owners.
4. Implementation timeframe	<ul style="list-style-type: none"> ● No comment.

Measure B2 - Tighten the annual vehicle examination for private cars from over six years old to over three years old (or consider adopting vehicle kilometres travelled as the vehicle examination criterion).

Key Considerations	Members' Comment
1.Ancillary facilities for vehicle examination (e.g. technical, manpower, space and operational issues)	<ul style="list-style-type: none"> ● No comment.
2.Handling capacity of vehicle examination centres	<ul style="list-style-type: none"> ● No comment.
3.Vehicle owners, vehicle repair trade and public reaction	<ul style="list-style-type: none"> ● No comment.
4.Relevant overseas experience	<ul style="list-style-type: none"> ● No comment.
5.Cost effectiveness	<ul style="list-style-type: none"> ● Some Members opined that although private cars had not much impact on the total emissions, the Government should review the adequacy of the current arrangement of requiring private cars aged over six years to undergo annual emission test, as most of the private cars would be under warranty only for the first three years,. ● Some members pointed out that private cars were not a key source of roadside air pollution. While some private cars could become high-emission vehicles due to lack of maintenance, these vehicles could be identified effectively by roadside remote sensing equipment. ● Some members said that, when looking into this proposed measure, the Government should consider, with the support of relevant data, that whether there was a significant difference between the emission data of private cars aged three years and those aged six years. ● Government advised that the practice of requiring vehicle examination vary quite widely between countries. Since the driving mileage of private cars in Hong Kong was generally shorter than those in other countries, they were subject to less wear and tear. Therefore, the performance and conditions of vehicles in general were still good even when they were over 6 years old. If there was no concrete evidence to prove that the emissions from vehicles would worsen after 3 years of age, the suggested measure was considered not cost effective. Furthermore, the EPD had been deploying mobile remote sensing equipment at roadside to step-up the monitoring of excessive emissions from private cars and requiring private

Key Considerations	Members' Comment
	care not complying with the standard to pass a dynamometer test.
6. Implementation timeframe	<ul style="list-style-type: none"> ● No comment.

Measure B3 - Provide vehicle tailpipe emission testing equipment for rent by small and medium-sized vehicle repair workshops

Key Considerations	Members' Comment
1. Trade demand and reaction	<ul style="list-style-type: none"> ● Some members were of the view that whether the trade would use a particular type of vehicle tailpipe emission testing equipment depended on the price of the equipment as well as its recognition by the Authority. EPD advised that there was already a recognition mechanism in place for portable instruments for measuring vehicle tailpipe emission. The trade can make use of the portable apparatus for diagnosis and repair of vehicles. ● Some members said that some vehicle mechanics had not grasped the skills of using advanced tools and software for maintaining/repairing new vehicle models due to inadequate technical support. EPD noted that new business that provided specialized repair or diagnosis services for new vehicle models was emerging in the market. ● Some members opined that the Government should continue to provide training support on repair or diagnosis of new vehicle models, especially commercial vehicles, to the maintenance trade. EPD advised that the Government had been actively working in partnership with the Vocational Training Council (VTC), repair trade and vehicle manufacturers in organising seminars and workshops to help the vehicle repair trade to have a better grasp of the relevant maintenance techniques, in particular for Euro IV/V/VI vehicles
2. Technical and operational feasibility	<ul style="list-style-type: none"> ● Members opined that vehicle tailpipe emission testing equipment affordable by the trade was already available in the market. Additional support from the Government was not necessary. ● Some members suggested that the Government should provide more assistance to small and medium-sized garages that lacked of support, particularly for maintaining new commercial vehicle models of Euro V/VI standards. Some Members stated that there were “specialist” emerging in the market which providing specialized repair services that required the use of computer equipment.
3. Cost effectiveness	<ul style="list-style-type: none"> ● No comment.

Key Considerations	Members' Comment
4. Implementation timeframe	<ul style="list-style-type: none"> ● No comment.

Measure B4 - Establish a maintenance information database of vehicle tailpipe emission system

Key Considerations	Members' Comment
1. Trade demand and reaction	<ul style="list-style-type: none"> ● Members opined that the Government had to assess whether the vehicle repair trade was technically competent to repair new vehicle models when deciding to tighten the vehicle emission standards. EPD advised that the European Union had mandated manufacturers of Euro VI vehicles to provide access to information on repair and maintenance of new vehicle models at reasonable fees. Besides, the Government had been working with the VTC, repair trade and vehicle manufacturers to hold workshops for the trade to understand relevant information on vehicle maintenance. The Government would like to see that, in the long term, VTC can make use of the materials of the workshops as teaching aid of future courses for training vehicle mechanics. ● Members hoped that the Government would introduce a mandatory registration system for vehicle mechanics to raise their professional status, thereby attracting more young people to join the vehicle repair industry.
2. Technical and operational feasibility	<ul style="list-style-type: none"> ● Some members considered that even if vehicle manufacturers were uncooperative and unwilling to provide vehicle maintenance information, the trade could still establish to share their maintenance experiences. The Government should encourage and support the trade in establishing the platform for sharing of maintenance experience and information.
3. Cost effectiveness	<ul style="list-style-type: none"> ● No comment.
4. Implementation timeframe	<ul style="list-style-type: none"> ● No comment.

Measure B5 - Raise awareness on the importance of vehicle maintenance and repair

Key Considerations	Members' Comment
<ul style="list-style-type: none">● Drivers' and vehicle owners' reaction●	<ul style="list-style-type: none">● Members opined that the Government should continue its efforts to promote proper vehicle maintenance so that the trade and vehicle owners could understand the benefits of proper vehicle maintenance for reducing vehicle emissions. Imposing heavier penalties on vehicles emitting excessive pollutants might also serve the purpose.
<ul style="list-style-type: none">● Implementation timeframe●	<ul style="list-style-type: none">● No comment.