

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

**Digest of the 5<sup>th</sup> Meeting  
held on 10 January 2017 at 2:30 p.m.  
in Conference Room, 33/F., Revenue Tower, 5 Gloucester Road, Wanchai**

**Present:**

Ms. Christine LOH	Under Secretary for the Environment ( <b>Chairperson</b> ), Environment Bureau (ENB)
Mrs. Alice CHEUNG	Deputy Director of Environmental Protection (3) <b>(Vice-chairperson)</b> , Environmental Protection Department (EPD)
Mr. CHIANG Sui-ki	
Mr. FUNG Pak-sing	
Mr. Sunny HO	
Mr. David WONG Yui-cheong	
Mr. KWOK Tak-kee	
Mr. Jeff BENT	
Mr. Tony TONG	
Mr. Danny WU	
Mr. Simon NG	
Mr. MOK Wai-chuen	Assistant Director of Environmental Protection (Air Policy), EPD
Mr. Brian LAU	Acting Principal Environmental Protection Officer (Air Policy), EPD
Ms. Louisa YAN	Principal Assistant Secretary (Transport)10, Transport and Housing Bureau (THB)
Mr. LAI Ying-keung	Chief (Marine Policy), Marine Department (MD)

**In Attendance:**

Ms. Josephine HO	Acting Senior Environmental Protection Officer (Air Policy) 1, EPD
Dr. Peter LOUIE	Senior Environmental Protection Officer (Air Policy) 5, EPD

Mr. Simon LAM	Environmental Protection Officer (Air Policy) 11, EPD
Dr. Jackie NG	Assistant Environmental Protection Officer (Air Policy) 12, EPD
Mr. Freeman CHEUNG	Consultant's representative, AECOM Asia Co. Ltd.
Mr. Ping KONG	Consultant's representative, AECOM Asia Co. Ltd.
Mr. Karl AN	Consultant's representative, AECOM Asia Co. Ltd.
Prof. Jimmy FUNG	Consultant's representative, HKUST

**Absent with apologies:**

Mr. Arthur BOWRING  
 Mr. Ellis CHUNG  
 Ms. Jessie CHUNG  
 Ms. Sandy MAK  
 Mr. David KONG  
 Mr. KEUNG Siu-fai  
 Prof. John LIU Jian-hua

The **Chairperson** welcomed Members to the 5<sup>th</sup> meeting of the marine transportation sub-group.

**Agenda Item 1 – Confirmation of Digest of the Fourth Meeting**

2. The Secretariat received comments from Members on the draft digest of the fourth meeting before this meeting and would send the revised digest of meeting for Members' confirmation after the meeting.

**Agenda Item 2 – Assessments on the practicability to implement the proposed measures under “Use of clean fuel”**

3. Based on the deliberations on the proposed measures under “Use of clean fuel” in the fourth sub-group meeting on 29 November 2016, the Secretariat revised the assessments on the practicability of the proposed measures, which had been sent to Members before the meeting. Members confirmed the assessment of the proposed measures under “Use of clean fuel”.

### **Agenda Item 3 – Discussion on the assessments on the practicability to implement the proposed measures under “Technical measures”**

4. The Administration briefed Members on the draft assessments on the practicability to implement the proposed measures under “Technical measures”. Members’ comments are summarized in the **Annex A**.

5. In view of Members’ comments, the Administration would beef up the assessment for the proposed measure B1 “*Impose emission standards on outboard engines of pleasure crafts*” on the quantity of outboard engines in Hong Kong and the supply of both petrol-fueled and diesel-fueled outboard engines for the sub-group’s consideration in the next meeting.

6. Members confirmed the assessment on the proposed measures B2 “Install emission reduction device (e.g. particulate filters) to reduce particulate matters (PM) emitted from local vessels” and B3 “Impose control on nitrogen oxides (NOx) emissions from engines of local vessels”.

### **Agenda Item 4 – Discussion on key considerations for the implementation of proposed measures under “Fuel economy, energy efficiency and port management”**

7. The Administration briefed Members on the evaluations of key considerations for implementing the proposed measures under “Fuel economy, energy efficiency and port management”. Members’ comments are summarized in the **Annex B**.

8. In view of Members’ comments on the practicability to implement slow-steaming for OGVs in the eastern Hong Kong waters, the Administration would further discuss with individual Members and the Marine Department to revisit the assessment for Members’ consideration in the next meeting.

*[Post-meeting note: EPD and the Consultant met with the Hong Kong Pilots Association Ltd., the Marine Department and sub-group members on 26 January 2017. Their comments were taken into consideration in preparing the assessment on the practicability to implement this proposed measure.]*

### **Agenda Item 5 – Any other business**

9. No other business was raised.

### **Agenda Item 6 – Date of the next meeting**

10. The next meeting would be held on 16 February 2017 (Thursday). The

meeting was adjourned at 4:40 p.m.

Proposed new air quality improvement measures	Comments from Members and the conclusion
<b><i>B. Technical measures</i></b>	
1. Impose emission standards on outboard engines of pleasure crafts	<p><u>Comments from Member:</u></p> <ul style="list-style-type: none"> <li>● A member advised that the supply of diesel outboard engines in Hong Kong is limited, and considered that imposing emission control on diesel outboard engines would not be practicable.</li> <li>● The Marine Department responded that most of the outboard engines used on local vessels are petrol-fueled. The number of diesel outboard engines in Hong Kong is few. There is currently no emission requirement for local outboard engines with power rating less than 130 kW.</li> </ul> <p><b><u>Conclusion:</u></b></p> <p>Practicability for implementation: to be confirmed in the next sub-group meeting</p> <p>The Administration would revisit the assessment taking into account the quantity and supply of both petrol and diesel outboard engines in Hong Kong for the sub-group's consideration in the next meeting.</p>
2. Install emission reduction device (e.g. particulate filters) to reduce particulate matters (PM) emitted from local vessels	<p><u>Comments from Members:</u></p> <p>Members confirmed the assessment.</p> <p><b><u>Conclusion:</u></b></p> <p>Practicability for implementation: Others – not practicable</p> <p>The sub-group concluded that the proposed measure is subject to a number of constraints, the scope for applying the proposed measure on local vessels is expected to be very limited.</p>

Proposed new air quality improvement measures	Comments from Members and the conclusion
<b><i>B. Technical measures</i></b>	
3. Impose control on nitrogen oxides (NOx) emissions from engines of local vessels	<p><u>Comments from Members:</u> Members confirmed the assessment.</p> <p><b><u>Conclusion:</u></b> Practicability for implementation: Others – not practicable The sub-group concluded that the proposed measure is subject to a number of constraints, the scope for applying the proposed measure on local vessels is expected to be very limited.</p>

**Measure C1 – Explore financial incentive and disincentive schemes to encourage liners to use less polluting OGVs calling Hong Kong ports**

Key Considerations	Comments from Members/Administration
1. Implications on port competitiveness	<ul style="list-style-type: none"> <li>● Members opined that incentive schemes are preferred over disincentive schemes as the latter might have adverse impact on port competitiveness. The Government may consider extending the existing Port Facilities and Light Dues Incentive Scheme for OGV on the use of marine fuel with sulphur content not exceeding 0.1%.</li> <li>● Some members considered that financial incentive schemes could be pursued in collaboration with our neighboring ports in the PRD region to maximize their effectiveness.</li> <li>● The Administration responded that the use of marine diesel with sulphur content not exceeding 0.1% for OGV at berth would be pursued on a regional basis to avoid jeopardizing our port competitiveness. The provision of incentive schemes is considered practicable but would involve thorough discussions between the Government and the trade on the implementation.</li> </ul>
2. Operating costs for the shipping trade	<ul style="list-style-type: none"> <li>● Members confirmed the evaluation.</li> </ul>
3. Benchmarking for giving incentives / disincentives	<ul style="list-style-type: none"> <li>● A member considered that a unified benchmarking standard with the neighboring ports would be more easily accepted by the trade.</li> </ul>

**Measure C2 – Optimize port efficiency to shorten waiting and turnaround time of OGVs, river trade vessels and mid-stream operators at container terminals, river trade terminals and public cargo working areas (PCWA)**

Key Considerations	Comments from Members/Administration
1. Strategic planning on port development	<ul style="list-style-type: none"> <li>● The Administration informed members that a number of strategic port development measures to optimize port efficiency are under discussion at the Hong Kong Maritime and Port Board (HKMPB) led by the Transport and Housing Bureau. To avoid duplicating the efforts, the sub-group would not discuss these measures, while the Administration would assess the emission reduction potential of these measures subject to the outcome of the discussions in the HKMPB.</li> <li>● Members agreed with the approach and suggested the Government to expedite the implementation of the port efficiency enhancement measures and to explore the collaboration in port operation and development with the neighboring ports in the PRD region, particularly Shenzhen, to enhance overall regional port efficiency.</li> </ul>
2. Marine traffic considerations	
3. Feasibility	
4. Impact on operation of container terminals, river trade terminals and public cargo working areas	

### Measure C3 – Slow-steaming of OGVs in Hong Kong waters

Key Considerations	Comments from Members/Administration
1. Impact on marine traffic	<ul style="list-style-type: none"> <li>● Members considered that the marine traffic in the existing speed restriction areas in the Victoria Harbor and its adjacent areas is already busy, further extending the existing speed restriction areas or lowering the speed limits for OGVs would result in severe marine traffic congestion.</li> <li>● A member advised that vessels calling Yantian port would inevitably enter the eastern Hong Kong waters. Vessels departing Hong Kong may also take the route via eastern Hong Kong waters to Yantian port. More information would be needed to study the practicability to establish speed restriction areas in the eastern part of Hong Kong waters, e.g. the Mirs Bay.</li> <li>● The Marine Department responded that existing speed restriction areas were established for marine safety consideration. Establishing new speed restriction areas for environmental reason would require careful study.</li> </ul>
2. Operating costs for the shipping trade	<ul style="list-style-type: none"> <li>● Members confirmed the evaluation.</li> </ul>
3. Trade reaction	<ul style="list-style-type: none"> <li>● Members considered that the scope to further extend the existing speed restriction areas or to lower the speed limits for OGVs would be limited.</li> <li>● Members suggested that the Government should explore regional collaboration in implementing slow-steaming for the benefit of port competitiveness.</li> <li>● A member opined that the liners would consider exercising slow-steaming to save fuel subject to a number of factors, such as the availability of berth and berthing time at the port of call, impact to the ship engines, the weather conditions, etc.</li> </ul>

**Measure C4 – Encourage academia to carry out studies on fuel and energy efficient measures in terms of operation and maintenance for local vessels’ and collaboration between academia and local marine trade for the development of best practice guidelines and award system to facilitate adoption of the measures**

<b>Key Considerations</b>	<b>Comments from Members/Administration</b>
1. Availability of funding support for the studies and trials	<ul style="list-style-type: none"> <li>● A member suggested that a mechanism to verify the eligibility of the studies for funding support would be necessary.</li> <li>● Another member advised that some research projects may not be eligible to acquire funding from the Environment and Conservation Fund (ECF).</li> <li>● The Administration responded that the ECF is a suitable platform with successful experience in providing funding to studies related to fuel and energy efficient measures on local vessels. There is existing mechanism in place under the ECF to vet the eligibility of the studies for funding support. Professional views from the THB and the MD would be invited if necessary.</li> </ul>
2. Provision of resources for training of maritime professional and engineers, development of best practice guidelines and establishment of award system	<ul style="list-style-type: none"> <li>● Some members considered that the Government should provide more resources to encourage young people to pursue their career in local maritime sector so as to strengthen the development of the local maritime industry.</li> </ul>
3. Technology maturity, cost implications, safety considerations, availability of ancillary facilities and technical support of adopting	<ul style="list-style-type: none"> <li>● Members confirmed the evaluation.</li> </ul>

<b>Key Considerations</b>	<b>Comments from Members/Administration</b>
such measures	
4. Availability of mechanism to facilitate adoption of the measures by the trade and review of their outcomes	<ul style="list-style-type: none"> <li>● Some members considered that the Government should encourage the participation of the local marine trade in identifying fuel and energy efficient measures, and to promote the exchange of ideas between the local marine trade and the academia to facilitate studies on the fuel and energy efficient measures and their wider adoption on local vessels. Provision of financial incentives by the Government may be considered.</li> </ul>