

Task Force on Kai Tak Harbourfront Development

For discussion
on 30 April 2015

TFKT/03/2015

Marine Emissions Control in Hong Kong

PURPOSE

This paper briefs Members of the measures to reduce marine emissions for protecting public health.

BACKGROUND

2. After our intensive efforts to reduce land-based emissions, marine vessels, including ocean going vessels (OGVs) and local vessels, have become the largest local air pollution emission source, accounting for 50%, 37% and 32% of the emissions of sulphur dioxide (SO₂), respirable suspended particulates (RSP) and nitrogen oxides (NO_x) respectively in 2012. To further reduce marine emissions, we have introduced cleaner fuels for vessels.

FUELS FOR LOCAL VESSELS

3. In Hong Kong, most of the small boats (e.g. pleasure boats and yachts) have been using petrol of sulphur content not exceeding 0.001%. Such petrol is indeed motor vehicle petrol, which has been upgraded to Euro V standard since 2010. As for diesel-powered vessels, we have capped since 1 April 2014 the sulphur content of locally supplied marine diesel at 0.05%¹, about 90% less the previous limit. The sulphur cap helps reduce the emissions of SO₂ and RSP from diesel-powered vessels by 90% and 30% respectively.

¹ We enacted on 1 April 2014 the Air Pollution Control (Marine Light Diesel) Regulation (Cap. 311Y)

Task Force on Kai Tak Harbourfront Development

TFKT/03/2015

FUEL FOR OGVs

4. As required by the International Maritime Organization, OGVs should not use fuel with sulphur content exceeding 3.5%, which is 70 times as much as that of local marine diesel. The SO₂ emitted by an OGV when berthing accounts for about 40% of its total SO₂ emission when staying in Hong Kong. Hence, requiring OGVs to switch to cleaner fuel while berthing can effectively reduce their emissions.

5. The government has been working in partnership with the shipping trade to reduce emissions from berthing OGVs. In 2011, 17 major ship liners in Hong Kong signed up to the Fair Winds Charter, which is a voluntary initiative by the shipping trade, committing themselves to switching to low sulphur fuel as far as possible when berthing. The Charter continued until end 2014.

6. On 26 September 2012, we launched a 3-year Port Facilities and Light Dues Incentive Scheme (the Incentive Scheme) to encourage berthing OGVs to use cleaner fuel. For OGVs that switch to low sulphur marine fuel (LSMF) while berthing, i.e. fuel with sulphur content not exceeding 0.5%, their port facilities and light dues will be reduced by half. Between 26 September 2012 and 28 February 2015, we approved 8,146 applications under the Incentive Scheme, which accounted for about 13% of the total number of OGV-calls during the period. The total revenue forgone by the Government was about \$42.1 million.

7. In parallel, we started working on a proposal to mandate OGVs to switch to cleaner fuel when berthing. After a thorough consultation with the shipping trade, Legislative Council and the relevant stakeholders, we enacted in 2015 the Air Pollution Control (Ocean Going Vessels) (Fuel at Berth) Regulation (the Regulation), which requires berthing OGVs to switch to LSMF, liquefied natural gas or any other fuel approved by the Authority or adopt technology which can reduce SO₂ emissions at least as effectively as using LSMF, starting from 1 July 2015. The enactment has put Hong Kong to be the first port in Asia to

Task Force on Kai Tak Harbourfront Development

TFKT/03/2015

mandate berthing OGVs to switch to cleaner fuel. The fuel switch will reduce the total SO₂ and RSP emissions in Hong Kong by 12% and 6% respectively. This will help improve air quality and reduce the risk to public health.

8. To attain greater environmental benefits of the fuel switch and maintain a level playing field for ports in the Pearl River Delta (PRD) region, we are also exploring with the relevant authorities in Guangdong and Shenzhen to make the use of LSMF a common requirement for berthing OGVs for ports in the PRD.

9. To ensure smooth implementation of the Regulation and to maintain Hong Kong's port competitiveness before fuel switch at berth becomes a regional practice, the Financial Secretary in his Budget Speech 2015-16 announced that the Incentive Scheme would be extended for 30 months up to March 2018 for OGVs.

OTHER INITIATIVES

10. We have commissioned a study on the feasibility of providing onshore power supply (OPS) at Kai Tak Cruise Terminal. We are finalizing its findings and working out a way forward in consideration of all relevant factors. We will report to the Panel on Environmental Affairs of the Legislative Council in coming months on our findings and recommendations.

11. Besides, the Marine Department has been controlling emissions from vessels through implementing the requirements under Annex VI to the International Convention for the Prevention of Pollution from Ships (MARPOL) and enforcing against dark smoke emissions from vessels.

**Environmental Protection Department
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