Ship Emissions Control Policymaking: Lessons from Hong Kong

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Presentation at
Shipping & Environment Second Conference, Wallenberg Conference Centre
Gothenberg | 4 September 2019
The starting point
The context
International Maritime Organization (IMO)

• International Convention for the Prevention of Pollution from Ships (MARPOL) Annex VI: global cap on fuel sulphur content:
  • 4.5% (pre-2012)
  • 3.5% (since January 2012)
  • 0.5% (since January 2020)

• Emission Control Areas
  • Northern Europe, North America, US Caribbean
  • Pre-2015: 1%; starting January 2015: 0.1%
Preliminary research

MARINE EMISSION REDUCTION OPTIONS
for Hong Kong and the Pearl River Delta Region
Caitlin Gall & Marcos Van Rafeghem
March 2008

GREEN HARBOURS:
Hong Kong & Shenzhen
Reducing Marine and Port-Related Emissions
June 2008
Veronica Galbraith
Lynne Curry
Christine Loh
Ground-breaking inventory...
...with detailed findings

OGV SO₂ Emission by Vessel Type (%)

79.5%

OGV PM₁₀ Emission by Vessel Type (%)

81.0%

Emission map

Stakeholders engagement

- Ongoing engagement: since 2008
- 2 major conference
- Over 10 cross-sector workshops
- Hundreds of smaller events (meetings, briefing sessions, presentations, etc)
Cross-sector engagement

- International shipping lines
- Container terminal operators
- Local craft operators (such as barges & tugs)
- Truck owners and operators
- Shippers (cargo producers)
- Fuel providers
- Government agencies
- Academia and research groups
- NGOs and general public
Good engagement

LISTEN
Message from industry

• Industry support shows commitment to be part of the solution
• Voluntary action a good starting point, but regulation always the best way to clean up
• Want regulation consistent with MARPOL Annex VI
• Regulation creates a level playing field within the sector and across the region
The Fair Winds Charter
2011 - 2012

As international carriers, we recognize the emissions from our ships affect air quality in Hong Kong and the Pearl River Delta region. As responsible businesses, WE VOLUNTARILY COMMIT TO:

• Switching to a fuel containing 0.50% sulphur content or less (“low sulphur fuel”) while at berth (at the terminal or at anchorage) in Hong Kong, to the maximum extent possible;
• Undertaking this voluntary initiative between 1 January 2011 and 31 December 2012;
• Collaborating within our sector and with the Hong Kong SAR and Guangdong Governments to introduce regulation on ship emissions, consistent with international standards.

In support of the HKLSA FAIR WINDS CHARTER, WE:

• Urge the Hong Kong SAR Government to take a lead and work with the Guangdong Government to regulate the use of low sulphur fuel in the Pearl River Delta region by 31 December 2012.
• Urge the Hong Kong SAR Government to encourage broader industry participation by providing incentives, as it has done with other transport modes.
• Encourage the container terminals to support this initiative by offering advantages to participating ships, as well as by addressing emissions from cargo handling equipment, and the trucks and local craft that service the terminals.
• Encourage ocean-going passenger liners and other maritime users of the Port of Hong Kong to use low sulphur fuel while at berth in Hong Kong.
• Encourage cargo producers and buyers to favour participating shipping lines as a way of meeting their sustainable supply chain commitments.
• Welcome the support of end consumers who purchase the goods that the shipping industry carries.
Government joining the table
● Air Pollution Control (Ocean Going Vessels) (Fuel at Berth) Regulation became effective starting from 1 July 2015.

● Hong Kong is the first city in Asia to regulate ship emissions through marine fuel used by ocean going vessels

● Significant reduction of SO₂ and PM₁₀

● Air Pollution Control (Fuel for Vessels) Regulation since 1 January 2019.
Emission control policy

<table>
<thead>
<tr>
<th>Policy</th>
<th>Start Date</th>
<th>End Date</th>
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</thead>
<tbody>
<tr>
<td>Fair Winds Charter</td>
<td>2011.1.1</td>
<td>2014.12.31</td>
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<td>Incentive Scheme</td>
<td>2012.9</td>
<td>2018.3.31</td>
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<tr>
<td>Marine Light Diesel Regulation</td>
<td>2014.4.1</td>
<td>ongoing</td>
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<tr>
<td>OGVs Fuel at Berth Regulation</td>
<td>2015.7.1</td>
<td>ongoing</td>
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Ship emission inventory and control work since 2011
Shanghai’s ship emission inventory (2012+)
Shenzhen incentive scheme (2014)
Guangzhou Port Green Charter (2016)
MoT’s domestic emission control areas (DECA) implementation plan (2016 – 2019)
MoT’s DECA 2.0
THANK YOU

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