Cruise Ship Regulation
Shipping Emissions Workshop
26 October 2015

David Fowler
Director Reform and Compliance
PM2.5 emissions Sydney Harbour 2010-11, Shipping sources

Goldsworthy, 2014
Fuel consumption in Sydney Harbour 2010-11, Shipping sources

Goldsworthy, 2014
Development of Regulation

- Draft regulation released for consultation in June 2015
- Nearly 200 submissions received
- Final Regulation introduced 4 September 2015
- Took effect 1 October 2015
Protection of the Environment Operations (Clean Air) Amendment (Cruise Ships) Regulation 2015

- **Stage 1**
  - low sulfur fuel (0.1% or less) while berthed in Sydney Harbour from 1 October 2015

- **Stage 2**
  - low sulfur fuel (0.1% or less) while in Sydney Harbour (including while berthed) from 1 July 2016
Sydney Harbour – Indicative map (Stage 2)
Fuel availability defence

- Clause 78D
- Stage 2 only
- 48 hours advance notice (if possible)
- Take all reasonable steps to obtain low sulfur fuel
- Does not apply while berthded in Sydney Harbour
Special circumstances defence

- Clause 78F
- Applicable to Stages 1 and 2
- 48 hours advance notice (if possible)
- Circumstances:
  - Risk to ship safety or life at sea related to fuelling operations, including fuel changeover
  - Unforseen technical problems
  - Emergency situations
  - Unforseen delay in departure
  - Securing safety of another ship or saving life at sea
  - Unintentional ship damage
Ship safety and dry dock scheduling exemptions

- Clause 78G
- Ship safety – Stages 1 and 2
- Dry dock scheduling – Stage 2 only
  - Can’t be scheduled before 30 June 2016
  - Modifications to comply with low sulfur requirements or to use alternate methods
  - Independent verification by marine engineer in Australia
  - Confirmation from dry dock
  - Existing fleet only
  - Applies only to 31 December 2018

www.inter-marine.com.au
Alternate fuels and technologies

- Fuels (e.g. LNG, CNG, LPG) – cl 78H
  - exception where appropriate notification is given to the EPA

- Technologies (e.g. exhaust scrubbers) – cl 78M
  - approval where sulfur and PM reductions are at least equivalent to what would be achieved by using low sulfur fuel

- Documentary evidence is required.
Fuel supply obligations

- **Clause 78I**
  Fuel supplier must provide to ship master:
  - bunker delivery notes (consistent with MARPOL)
  - fuel meeting specifications of bunker delivery note
  - fuel samples
  - maintain copy of bunker delivery notes for 3 years

- **Clause 78K**
  Ship’s master must ensure fuel samples are kept for one year.
Record keeping

Clause 78J

- Log book – arrival, departure and fuel changeover details
- Fuel changeover documentation
  - Fuel system diagram
  - Fuel tank capacities, locations, engine fuel consumption rates
  - Changeover procedures
  - Description of engine makes, models, rated powers, serial nos.
- Bunker delivery notes
- Documents relating to special circumstances (cl 78F)
- Records kept on board for three years
- Ship master or appropriate officer available at all reasonable times (cl 78L)
Penalties for non-compliance

- Penalty Notice offence – Failure to use low sulfur fuel
  - $15,000

- Prosecution
  - $44,000 for corporation
  - $22,000 for individual
EPA compliance activities

- Since 1 October 2015
  - 21 berthings of 11 cruise ships
  - 16 EPA inspections
  - All inspections have found that the cruise ship has been using low sulfur fuel, as required
Possible extension of Cruise Ship Regulation

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<thead>
<tr>
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<th>Annual projected cruise ship visits</th>
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<tr>
<td></td>
<td>2016</td>
</tr>
<tr>
<td>Sydney Harbour</td>
<td>250</td>
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<tr>
<td>Newcastle*</td>
<td>10-12</td>
</tr>
<tr>
<td>Port of Eden</td>
<td>10</td>
</tr>
<tr>
<td>Port Kembla**</td>
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</tbody>
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** Trial visit in 2016.

Sources in the cruise ship industry forecast an 85% growth in annual port calls by 2025.
Cruise ship emissions

- As a percentage of all ship particle emissions:
  - Sydney Harbour 35-40%
  - Newcastle\(^1\) <1%
  - Port of Eden No data – outside GMR
  - Port Kembla No cruise visits to date

\(^1\) DNV – Emissions from Ships Operating in the Greater Metropolitan Area
Consultation issues

- Community views
- Infrastructure in regional ports
- Storage capacity on-board ships
- Potential for alternate emission reduction methods, e.g. scrubber use
Next steps

- Consultation
  - Meetings, surveys
- Report back to Government early 2016