

Cruise Ship Regulation

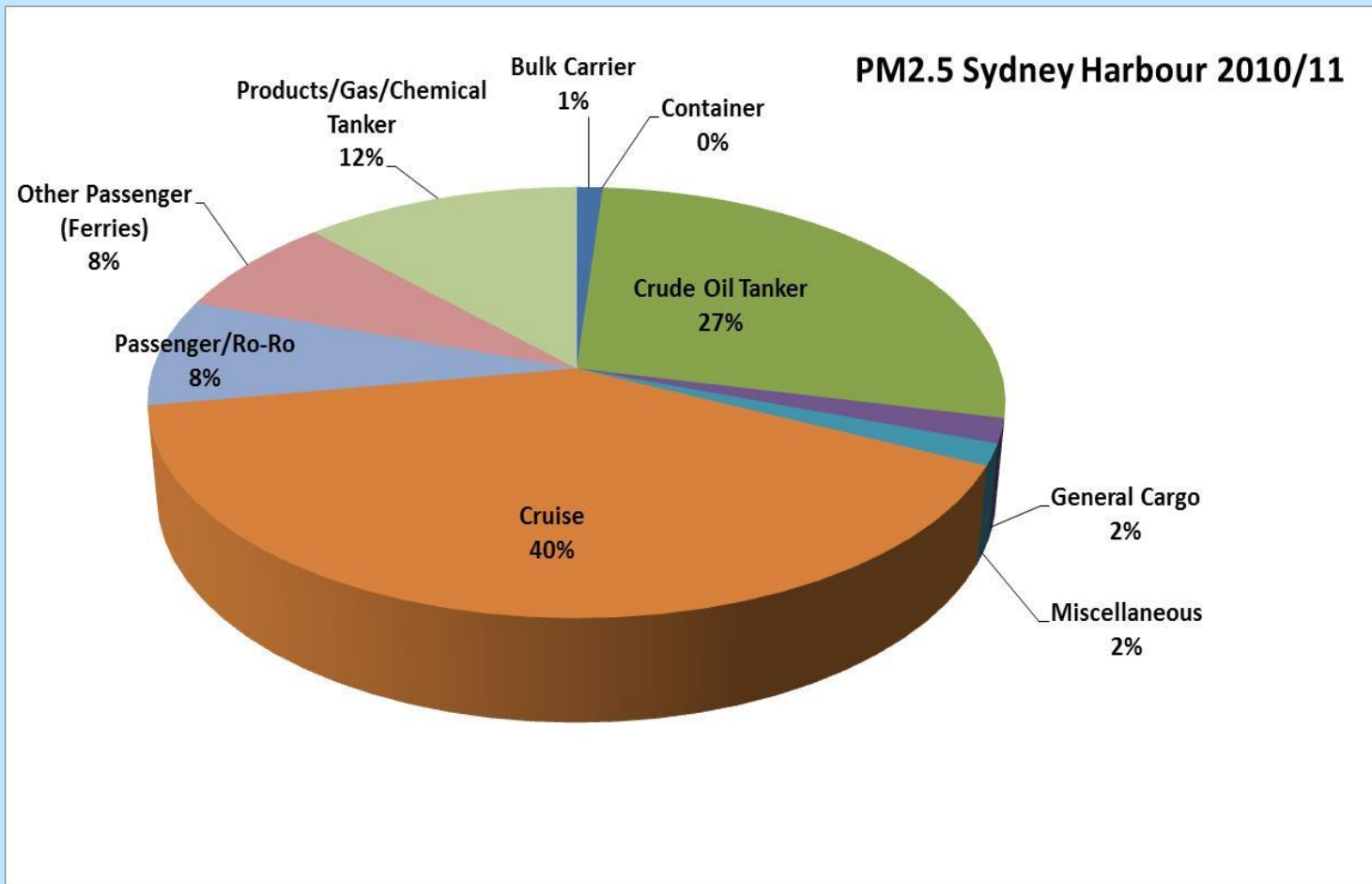
Shipping Emissions Workshop

26 October 2015



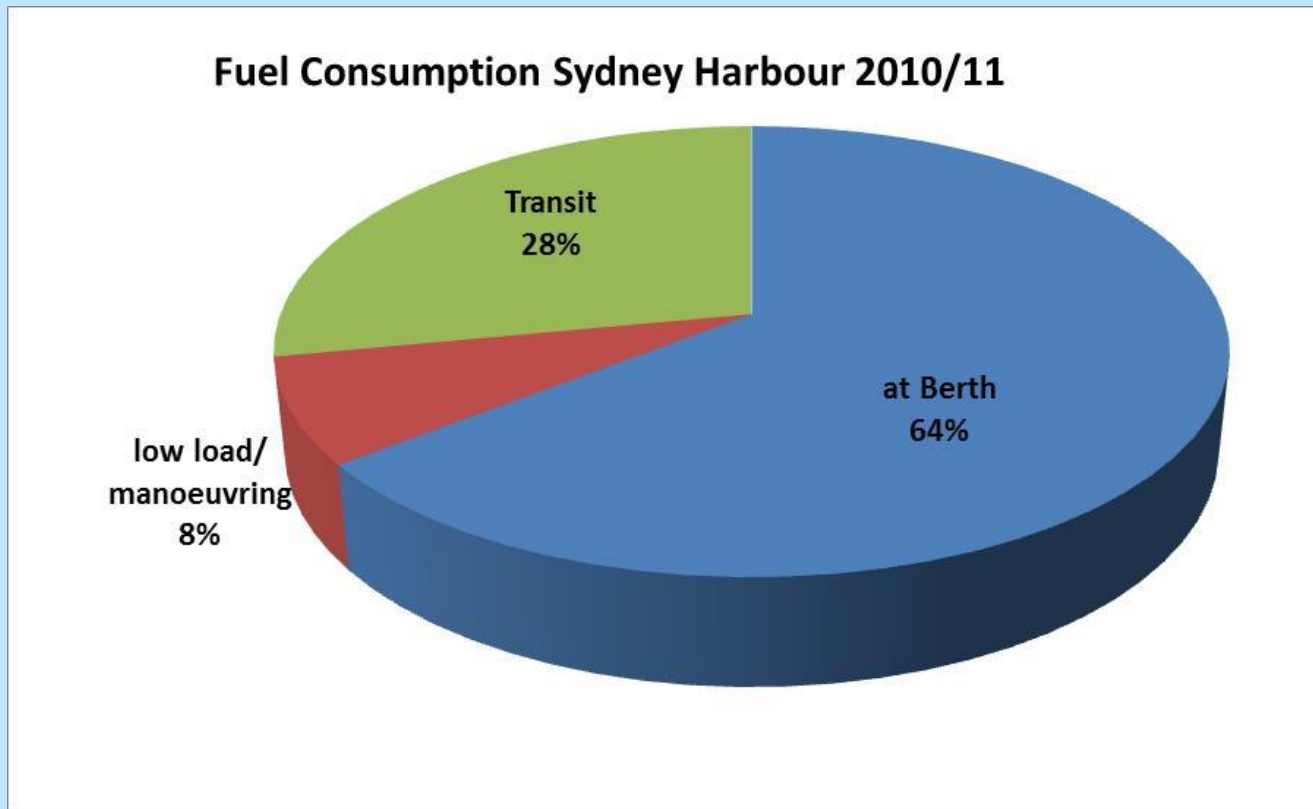
David Fowler
Director Reform and Compliance

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

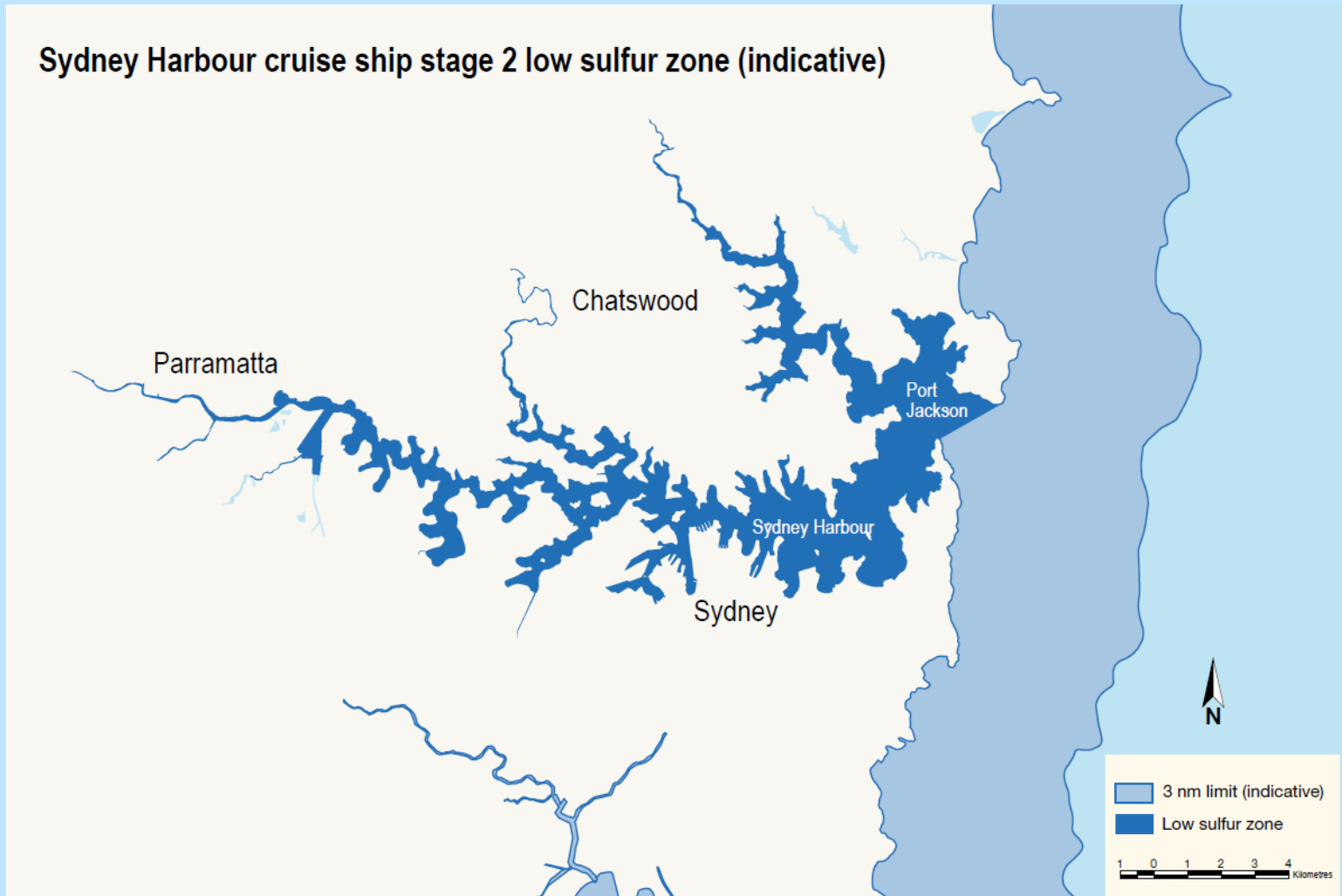
- Draft regulation released for consultation in June 2015
- Nearly 200 submissions received
- Final Regulation introduced 4 September 2015
- Took effect 1 October 2015



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

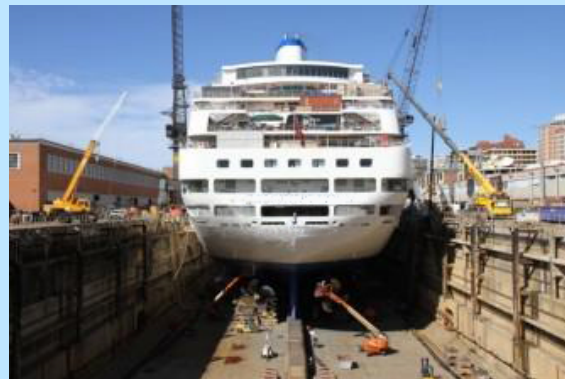
- Clause 78D
- Stage 2 only
- 48 hours advance notice (if possible)
- Take all reasonable steps to obtain low sulfur fuel
- Does not apply while berthed in Sydney Harbour

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
 - Unforeseen technical problems
 - Emergency situations
 - Unforeseen 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



Alternate fuels and technologies

- Fuels (eg. 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

	Annual projected cruise ship visits	
	2016	2025
Sydney Harbour	250	460
Newcastle*	10-12	19
Port of Eden	10	19
Port Kembla**	1	-

* Estimate. Nine visits currently scheduled Jan-June 2016.

** 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%
 - Newcastle¹ <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