



PORTS OF
AUCKLAND


TĀMAKI HERENGA WAKA



A Port's Perspective on Marine Fuel Quality

Rosie Mercer | 09 November 2016



The image features a close-up of a woven basket, likely made of natural fibers, with a circular orange overlay in the center. The overlay contains the text "Why is fuel quality important to our Port?". The basket's weave is visible, showing a pattern of intersecting fibers. The background behind the basket is dark and textured.

Why is fuel quality
important to our
Port?

Contaminants of Concern

Emission sources

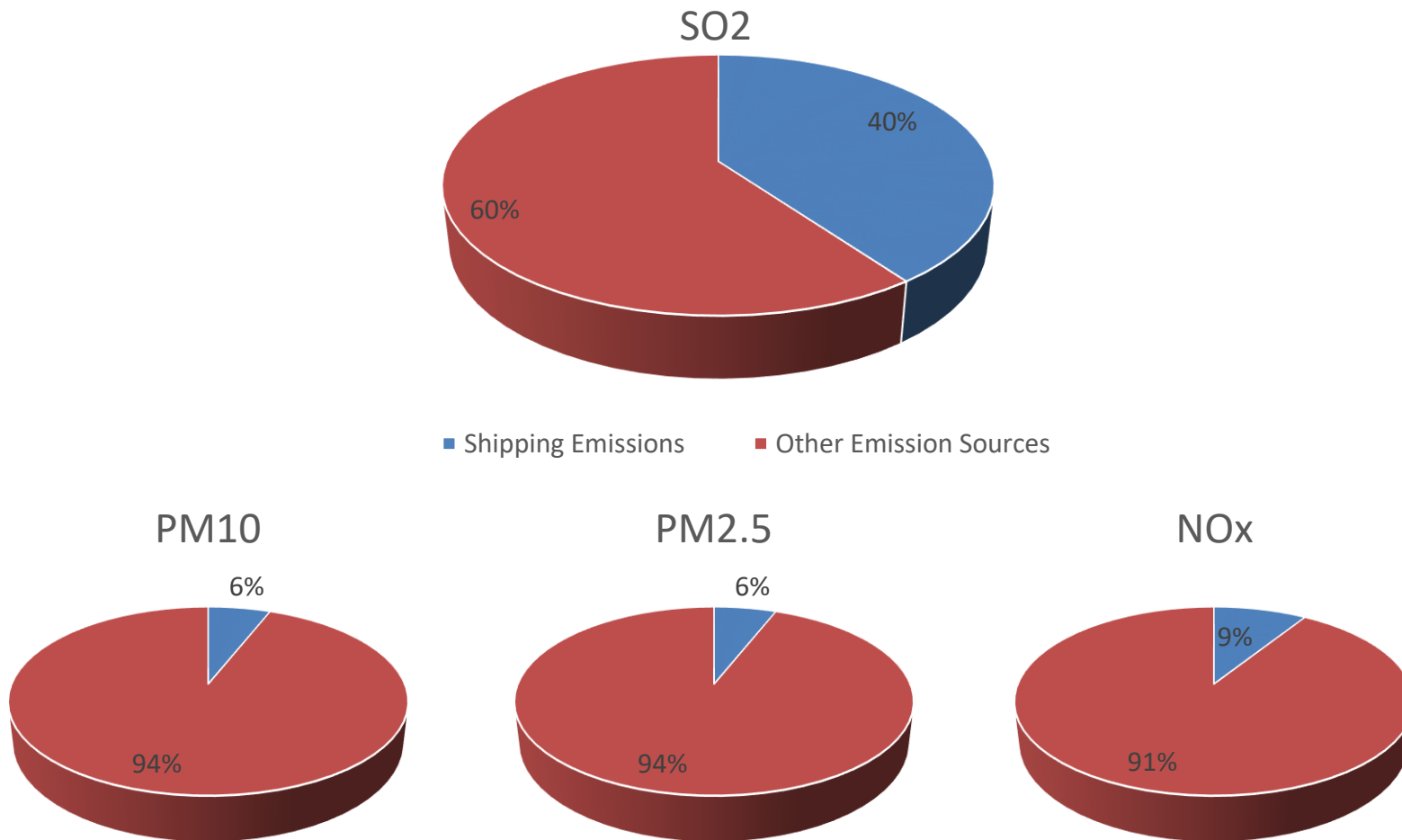
- Ships under propulsion
- Ships at berth
- Cruise ships vs container vessels

Emissions

- Nitrogen dioxide
- Sulphur dioxide
- PM2.5 PM10



Shipping Emissions Relative to Total Regional Emissions



Data is from the latest Regional Emissions Inventory undertaken by Auckland Council in 2010. The study is desktop only and the results should be considered relatively crude. Shipping emissions in this case relates to vessels both at berth and within 3km radius of the CBD.

How can Biofuels Help

- Biofuels offer a considerable reduction in emissions. According to Goodfuels Marine
- 80% reduction in CO₂ emissions
- 100% reduction in SO_x emissions
- 10% reduction in NO_x emissions
- 50 to 70% reduction in PM, HC and CO emissions



Need to engage with the shipping lines to better understand their capabilities and drivers

Social expectations



- City Port - Social licence to operate
- Community expectations often exceed the requirements of rules and regulations
- We can't be just a good neighbour, need to be best neighbour possible.



Public Perceptions and Media Influence

Isaac Da...

Cruise shi...

5:30 AM Wednesday

Auckland Central

Some cruise ships are under pressure to act as officials say that dirty fuel emissions are compounding Auckland's pollution problem.

With a new \$27 million terminal planned on the waterfront and the market still growing, the Council's environmental committee has been keen to make sure that the environmental impact of cruise liners is accounted for in the same way as other large cities.

At least 80 cruise ships are expected to be visited by the Parliament in the next few weeks.

Teuila Fuatai

NZ air pollution study

4:33 PM Monday Jul 29, 2015

Environment Pollution



The air that commuters in Auckland breathe is similar to that found in other large cities around the world.

Are you thinking about flying or driving a car to work?

If you thought that travelling by cruise ship is the same journey by plane, you're wrong.

Commuters in Auckland breathe similar air to those found in other large cities around the world.

Sam Judd

Sam Judd: emissions

8:42 AM Thursday May 14, 2015

Cruise Holidays



The floating monstrosities of the world. Photo: Robert Michael Peacock

Are you thinking about flying or driving a car to work?

If you thought that travelling by cruise ship is the same journey by plane, you're wrong.

Commuters in Auckland breathe similar air to those found in other large cities around the world.

NEWS

Just In US Election Australia World Business Sport Arts Analysis & Opinion Prog

NSW BUSHFIRES Emergency warnings in place for fires burning near Cessnock and Port Stephens

Print Email Facebook Twitter More

NSW Port Authority suspends overnight ship berthing at White Bay until low-sulphur fuel use regulated

By Lucy Marks
Updated 13 Jun 2015, 1:43pm

The New South Wales Port Authority has suspended overnight cruise ships from berthing at Sydney's White Bay Terminal in response to community concerns about fuel fumes.

It said the ocean liners will be prevented from docking overnight at the terminal at Balmain until the State Government regulates low-sulphur fuel use in the harbour.

The move has been welcomed by the Leichhardt Council but it said the terminal also needed to be fitted with shore-based power so ships are not required to keep their engines running, which causes excess fuel emissions.

"The temporary suspension and the anticipated regulation of sulphur fuel, which needs to happen urgently, are both welcome steps," Leichhardt Mayor Rochelle Porteous said in a statement.

"However, ship to shore-based power must be retrofitted as soon as possible and noise mitigation addressed."



PHOTO: Ocean liners will be prevented from docking overnight at the terminal at Balmain until the State Government regulates low-sulphur fuel use in the harbour. (Facebook: Robert Michael Peacock)

MAP: Balmain 2041



What rules and regulations can a port lean on?

International Action on Fuel Quality

- IMO / MARPOL Annex IV Existing and proposed sulphur cap (IMO)
- Emission Control Areas



Initiatives at other Ports:

- NSW – use Low sulphur fuels when berthed overnight
- Fair Winds Charter – China
- Green Awards – Incentive Program
- Environmental Ship Index – voluntary programme to identify ships that perform better than IMO standards in reducing emissions.
- Port of Amsterdam pilot project with GoodFuels Marine to use biofuels for their own fleet

Local and National Air Quality Standards and Objectives

Air quality:

- Auckland Unitary Plan
- NZ Auckland Ambient Air Quality Guidelines
- National Environmental Standards for Air Quality (NESAQ)



Resource Management Act 1991 (RMA) – ships exempt
National standards preferable to local standards in order to help
industry drive change.



How can a port
influence improving
air quality?

Ports of Auckland's Approach

- Sustainability Strategy developed includes emission reductions target
- Partnered with Forum for the Future
- Current project underway to confirm capability to use biofuels in the Awanuia (tanker)
- Undertake studies to better understand emissions from ships that call at Auckland
- Seek opportunities to partner with shipping lines to drive change
- Consider options to incentivise use of alternate fuels
- Previously lobbied Central Government – timely to recommence
- Seek opportunities to partner in R&D



Summary

- POAL wants to be part of positive developments that support reduced emissions, circular economy and improved air quality
- Biofuels have the potential to improve air quality
- Local and national rules do not provide enough weight to enforce restrictions
- Regulations lag social pressure
- Central Government needs to be at the table and support positive change
- Need to work closely with shipping lines to accommodate their requirements – we can't do things in isolation



PORTS OF
AUCKLAND
TĀMAKI HERENGA WAKA

A Port's Perspective on Marine Fuel Quality

Rosie Mercer | 09 November 2016

