

**Submission
No 178**

**INQUIRY INTO PERFORMANCE OF THE NSW
ENVIRONMENT PROTECTION AUTHORITY**

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The Director
General Purpose Standing Committee No. 5
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RE: Performance of the NSW Environment Protection Authority

I welcome the opportunity to contribute to the New South Wales Legislative Assembly's inquiry into the performance of the NSW EPA, particularly its regulation of the White Bay Cruise Terminal in Balmain.

The cruise shipping industry is an important and growing contributor to the economies of Sydney and NSW. Last year alone, it generated more than \$1 billion worth of economic activity and around 5,000 full time jobs¹. Over the next twelve months, the number of ships visiting Australia is expected to increase 17 per cent to 835, with the majority destined for Sydney.

Like other industries its operations need to be appropriately regulated.

The need to modernise the regulatory arrangements applying to cruise ships has taken on greater urgency by the relocation of the City's second cruise ship terminal to White Bay, within close proximity of the high-density residential area on the Balmain peninsular.

The suburb's topography, together with the height of the funnels on the vessels, has resulted in harmful emissions with unacceptable amounts of sulphur inundating nearby homes whenever a vessel is docked. The World Health Organisation categorises these discharges a Group 1 carcinogen.

During the most recent cruise season – the first since the relocation of the terminal – residents reported an increased prevalence of asthma among children and a deterioration in the health of those with pre-existing respiratory diseases. Others experienced heart palpitations, eye irritations and bronchitis.

The current situation is made even more unacceptable by the fact that prior to the start of operations at White Bay residents and local representatives were repeatedly assured that vessels would be subjected to some of the world's strongest environmental safeguards.

¹ Cruise Down Under (CDU), "Economic Impact Assessment of the Cruise Shipping Industry in Australia 2012-13" – Economic modelling undertaken by AEC Group Limited

However, even a rudimentary review of international practices confirms that not to be so. In fact, cruise ships can do in Sydney Harbour what they cannot do within 24 nautical miles of the Californian coastline.

And let's not forget the words of the former Planning Minister Brad Hazzard. On 26 August 2011, he reassured Parliament:

"If White Bay has a cruise ship terminal, a lot of work will need to be done to ensure that it is suitable to the community and that it will enliven the area by providing opportunities. It certainly should not be something that damages the community."

Unfortunately, the NSW Government has failed its own test.

With the start of the next cruise season fast approaching, immediate action by the NSW Government and the Environment Protection Authority – in cooperation with Federal authorities – is required to protect the health of local residents and more broadly, maintain public confidence in the cruise shipping industry.

In light of the evidence presented in the attached appendix, the following measures should be urgently progressed:

1. Designate Sydney Harbour an "Emissions Control Area".

'Beachwatch' data collected by the NSW Office of Environment and Heritage has shown that over the past two decades, water quality has improved dramatically in Sydney Harbour as a result of effective environmental regulation and stormwater capture. This improvement in water quality has seen a breeding colony for little penguins emerge in the north of the harbour, and many water species that have not been spotted for over a century are returning.

The natural beauty of Sydney Harbour together with the tax-payer funded programs that have helped improve the Harbour's water quality and surrounding foreshore make Sydney Harbour a prime berth for the cruise industry. Successful environmental regulation has helped to create a profitable business.

The NSW Government must continue to protect Sydney Harbour and the residents who live on its foreshores. The Government must build on previous environmental successes by establishing strict controls on emissions and designating Sydney Harbour an 'emissions control area.'

This would bring NSW into line with the arrangements prevailing in North America and Europe, and allow the sulphur content of fuel oil used by cruise ships to be regulated to a maximum of 0.1 per cent.

The current Australian cap is **35 times greater** at 3.5 per cent, while the sulphur content of fuel used by vehicles on our roads is restricted to just 0.001

per cent. What's more, the other major user of the Harbour, the Royal Australian Navy, has recently announced that its vessels will soon be using cleaner, greener biofuels.

2. Accelerate the rollout of shore power and retrofitting of new exhaust gas cleaning systems, or 'scrubbers', to existing cruise ships.

I note that in the northern hemisphere the major cruise companies – Carnival Corporation, Norwegian Cruise Lines and Royal Caribbean Lines – are deploying across their fleets 'scrubbers', technology which uses filters and seawater to clean – or scrub – emissions from the burning of high-sulphur fuel.

This technology can reduce emissions of soot particles, nitrogen and sulphur by between 90 and 99 per cent².

The retrofitting of advance emissions control technology to ships should be complemented by the installation of eco-friendly shore power, facilities that allow ships to turn-off their diesel engines and connect to the local electricity supply while docked.

This initiative would go a long way to delivering cleaner air around the White Bay terminal, particularly given cruise ships can spend as much as 40 per cent of their operating hours in port.

I note that Carnival Corporation's updated Corporate Sustainability Summary states:

"Carnival has taken the lead in the cruise industry in developing shore power for cruise ships in Juneau, Alaska; Seattle, Washington; and Vancouver British Columbia ... [and] is engaged in planning shore power in several other United States and European ports..."

The German-based subsidiary of Carnival Corporation, AIDA Cruises, has gone even further. This year (2014) they launched their LNG hybrid barge, which eliminates emissions of soot particles and sulphur completely.

The technologies exist to reduce harmful emissions and operators are making a significant investment to equip their ships with them – but just not here in Australia, largely because of this country's far less stringent environmental standards. The time has come to bring our laws into line with world's best practice.

3. Independent Noise monitoring and increased penalties for breaches

Sydney Ports currently undertake noise monitoring as required by the Project Approval issued by the Department of Planning & Environment. Noise monitoring

² <http://www.theneweconomy.com/technology/carnival-corporation-eco-friendly-cruise-line>

results are available on Sydney Ports' website and often identify exceedances with the Project Approval.

Residents are constantly frustrated that no penalties appear to be associated with regular breaches and feel that allowing Sydney Ports to be the sole monitor of noise impact is not sufficiently independent.

There must be independent noise and air quality monitoring and significant penalties for any exceedances. It is the NSW Government's obligation to police the terms of the Project Approval and ensure that environmental and noise conditions are rigorously adhered to.

4. Conclusion

Without the actions outlined above, Australia runs the real risk of becoming a 'dumping ground' for older, dirtier cruise ships, relocated here to avoid the tougher standards in place in the northern hemisphere.

The NSW Government must act to protect public health, and I believe that can be achieved without harming the long term potential of Australia's burgeoning cruise shipping industry.

Indeed, modernising the State's environmental regulations fits with the goals the industry has set for itself. Just this year the head of the world's largest cruise company, Carnival Corporation CEO Arnold Donald, stated:

"We believe Carnival Corporation's investment in ... industry-leading technology will set a new course in environmental protection and cleaner air for years to come. Increasing environmental sustainability is one of our most important corporate goals, and having the new systems on our ships will be another effective way for us to meet that objective."³

It's time to work together to achieve our shared objective.

Yours sincerely,

VERITY FIRTH

³ http://phx.corporate-ir.net/phoenix.zhtml?c=200767&p=irol-newsArticle_print&ID=1933369&highlight=

1. Australia lags behind North America and Europe when it comes to the regulation of the diesel fuel used by cruise ships.

- Reducing the sulphur content of diesel fuel is critical to reducing the significant impacts of diesel emissions on human health.

[Reducing the sulphur content in fuel to 0.1 per cent reduces dangerous SO₂, PM₁₀ & PM_{2.5} emissions by 80-90 per cent & NO_x by 5-6 per cent.]

- Governments in North America and Europe have recognised the health risks to their citizens and regulated for low sulphur fuels well ahead of the international regulatory timetable.
- This was achieved by designating Emissions Control Areas. ECAs are buffer zones along the coastline in which vessels must reduce harmful emissions. Australia has no ECAs.
- These international developments in regulating sulphur content of fuel were well known prior to the approval of the White Bay Cruise Terminal in 2011.
- Currently in Australia ships are allowed to burn heavy fuel oil with sulphur content **35 times higher** than what is permissible in the waters off European cities and **3,500 times higher** than the cap on the fuel used in Australian cars.

Emissions Control Areas and Sulphur Fuel Standards – a comparison				
	North America	California	Europe	Australia
ECA designated?	Yes	Yes	Yes	No
ECA description	200 nautical miles out from the east and west coast of North America	California fuel sulphur requirements – 24 nautical miles out from the coast of California	EU directive set separate requirements for ships at berth and ships moving between EU Ports	N/A
Date ECA designated	August 2011	July 2009	Jan 2010	N/A
Fuel sulphur limits	2012 – 1% 2015 – 0.1%	2009 – 0.5% 2012 – 0.1%	2010 – 0.1% at berth and 1% when moving between ports	3.5%

- Australia is subject to the International Maritime Organisation's MARPOL Annex VI, enacted in 2008 to control exhaust emissions from vessels on the

open seas and away from human populations, not at berth and close to residential areas.

MARPOL Annex VI sulphur fuel reduction target	
2012	3.5%
2020	0.5%

- The 2020 MARPOL reduction target is inadequate. It is **five times** higher than the North American and European standards, and will not adequately protect the community. We urgently need to reduce fuel sulphur levels to a maximum of 0.1 per cent in Sydney Harbour.

2. **Cruise companies have been forced to take action in the northern hemisphere, thus turning Sydney Harbour into a lucrative dumping ground for old, dirty vessels.**

- Given the North American and European regulations apply much stricter standards to the sulphur content of fuel, as well as the use of shore-to-ship power, old ships which do not have new technology installed are being sent to Australia.
- The most recent example of this is Carnival Australia's 20 May 2014 announcement that it would be adding two new ships to the P&O Cruises (Australia) fleet⁴.
- A closer examination reveals the two ships are actually old ships, transferring from the Holland America fleet, and currently sailing as the MS Ryndam and MS Statendam.

	MS Ryndam	MS Statendam
Year ship launched	1994	1993
Current areas of operation	Europe & North America	North America

- The average age of the three most frequent visitors to the White Bay Cruise Terminal in 2014 is 23 years old. These three ships account for well over half of the visits:

	Year Launched
Pacific Pearl	1988
Pacific Jewel	1989
Sun Princess	1995

⁴ www.carnivalaustralia.com/media-releases/2014/may/breaking-news---more-ships-to-be-added-to-po-cruises-fleet.aspx

- On 22 May 2014, Carnival Corporation announced that it was rapidly increasing installations of industry-first exhaust gas cleaning technology to more than 70 per cent of its fleet. This technology significantly reduces the dangerous ship emissions especially Sulphur Dioxide and particulate matter and ensures compliance with the reduced sulphur standards set in Europe and North America.
- It appears that the Australian fleet is **excluded** from this deployment⁵.
- Surely what's good enough for the northern hemisphere is appropriate for Sydney and Australia more generally.

3. The Royal Australian Navy is converting to biofuels so that its vessels are compliant with North America's tough regulatory arrangements.

- The Australian Navy announced on 26 May 2014 that it would be converting its fleet to biofuels in order to ensure that it can continue to work on joint operations with its US counterparts⁶.

⁵ http://phx.corporate-ir.net/phoenix.zhtml?c=200767&p=irol-newsArticle_print&ID=1933369&highlight=

⁶ <http://www.theaustralian.com.au/national-affairs/policy/us-fleet-conversion-turns-navy-to-biofuels/story-e6frg8yo-1226931028375#>