Australia’s failing air pollution laws

Dr James Whelan
Nature Conservation Council of New South Wales
Overview

- The Ambient Air NEPM was made in June 1998, setting Australia’s first national standards for air quality.
- It does not set a standard for fine particles ($\text{PM}_{2.5}$).
- Australia lags behind international standards.
- Air quality standards are routinely exceeded without consequence for polluters or regulators.
- Many of the most polluted air environments are not monitored. The focus is on ‘representative’ locations.
- There is minimal community involvement in setting or reviewing air quality standards.
- Particle pollution is a significant and growing problem in communities where coal is mined and transported.
Coal and community health

Within 500m of the Hunter Valley coal corridor:
• 23,000 children attend school
• 32,000 residents (12.5%) of Newcastle’s population.

*The NSW EPA is unwilling to regulate to cover coal wagons despite this being identified as best practice in a report they commissioned in 2011. They fear the coal industry will take them to court.*
Residents receive SMS alerts when pollution levels exceed the national (NEPM) standard.

44 alerts have been issued so far during 2014, mostly for PM\textsubscript{10} exceedances.
PREMIER BARRY O’FARRELL AND TIM OWEN HAVE A NEW FILTER FOR COAL DUST.

YOU.

THE NSW GOVERNMENT IS ABOUT TO APPROVE YET ANOTHER COAL TERMINAL IN NEWCASTLE THAT WOULD:

- Double the coal dust: 25,000 children attend school within 500m of the coal corridor. T4 would mean at least 50 more uncovered coal trains each day;
- Result in 15 new coal mines in the Hunter Valley and Liverpool plains, destroying farmland and forests and polluting valuable water resources; and
- Destroy important wetlands on Koongang Island and replace them with uncovered coal stockpiles.

Tim Owen and Barry O'Farrell are doing nothing to protect the health of Newcastle residents from coal dust. Make your voice heard. Tell Tim and Barry "I don’t want another coal terminal in Newcastle"

stopt4.org.au
<table>
<thead>
<tr>
<th>Suburb</th>
<th>Highest PM$_{10}$ level recorded</th>
<th>No of days NEPM was exceeded</th>
<th>Distance to nearest coal train line or stockpile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrington (Garrett St)</td>
<td>80</td>
<td>5 of 5</td>
<td>500m to coal trains 600m to port 800m to stockpile</td>
</tr>
<tr>
<td>Tighes Hill (Henry St)</td>
<td>67.3</td>
<td>5 of 7</td>
<td>300 to coal trains 550m to stockpile</td>
</tr>
<tr>
<td>Mayfield (Crebert Street)</td>
<td>52.4</td>
<td>3 of 6</td>
<td>700m to coal trains 1000m to stockpile</td>
</tr>
<tr>
<td>Mayfield East (O'Mara Street)</td>
<td>62.2</td>
<td>3 of 6</td>
<td>150m to coal trains 750m to stockpile</td>
</tr>
</tbody>
</table>

East Maitland (Cumberland Rd)  60.2
East Maitland (Charles St)  51.7
Lochinvar (Winders Rd)  50.9
Newcastle's coal export capacity megatonnes/year

- 330 (with T4)
- 210 (with T3)
- 120 (2007)
- 77 (1997)
- 21 (1984)
Particle pollution concentrations (PM$_{10}$ and PM$_{2.5}$) exceeded the national standard 330 times during 2013.
Upper Hunter particle pollution exceedances 2013
Annual average PM$_{10}$ levels in the Hunter Valley 2012

Red line = WHO guideline
Performance monitoring is *not* required...

- In population centres with fewer than 25,000 people
- Near point sources
- Where pollutant levels are “reasonably expected to be consistently lower than the standards”
- Where an estimate or “alternative method” is considered adequate (by the state’s EPA)
# International standards for PM$_{10}$

<table>
<thead>
<tr>
<th></th>
<th>24 hour average</th>
<th>Annual average</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO 2005</td>
<td>50µg/m$^3$</td>
<td>20µg/m$^3$</td>
</tr>
<tr>
<td>NEPM</td>
<td>50µg/m$^3$</td>
<td>No standard set</td>
</tr>
</tbody>
</table>
### International standards for PM$_{2.5}$

<table>
<thead>
<tr>
<th></th>
<th>24 hour average</th>
<th>Annual average</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO 2005</td>
<td>25μg/m$^3$</td>
<td>10μg/m$^3$</td>
</tr>
<tr>
<td>NEPM advisory reporting standard*</td>
<td>25μg/m$^3$</td>
<td>8μg/m$^3$</td>
</tr>
</tbody>
</table>

The advisory report standard for PM$_{2.5}$ was adopted in 2003. NEPC committed to gathering sufficient data from PM$_{10}$ monitoring sites to inform the 2005 NEPM review.
In the Hunter Valley, coal mining accounts for 87.6% of PM$_{10}$ and 66% of the Hunter’s PM$_{2.5}$.

Senate Inquiry into the Health Effects of Air Quality, May 2013 p.55.
The most recent National Pollutant Inventory shows PM$_{10}$ emissions from Australian coal mines increased by 187% between 2003-04 and 2012-13, from 134,000 tonnes to 384,000 tonnes.
Between 2007-08 and 2012-13, PM$_{2.5}$ emissions from coal mining increased by 56% from 4,600 tonnes to 7,385 tonnes.
Mt Arthur open cut coal mine reported 7.6 million tonnes of PM$_{10}$ during 2013. Peak Downs mine reported 28.3 million tonnes.

In June 2014, BHP Billiton was fined $3000 when trucks dumped over-burden at an elevated level in windy conditions.
10 year trend in PM$_{10}$ levels in Newcastle. The NEPM standard was exceeded 77 times. The proposed 4$^{th}$ coal terminal will increase PM$_{10}$ levels by up to 17.9$\mu$g/m$^3$. 
Access to reliable and timely data

“Data are unreliable, hard to access, difficult to analyse and often incapable of providing timely and quality information to inform decisions. This legacy issue has been known for years without being addressed... Poor data have hampered past approaches to effective environmental regulation of the mining and waste industries. This issue is now brought into even sharper relief under the current regulatory strategy, based as it is on government policy to ease the burden on industry caused by regulation and its associated bureaucracy...”

Environmental regulation of the resources and waste industries, Report 15, 2013-14, Queensland Audit Office
“I would like to complete a National Clean Air Agreement by 1 July 2016. The Australian Institute of Health and Welfare estimated that urban air pollution was responsible for more than 3,000 early deaths in 2003. This is a critical national issue and I would like it to be a signature objective of my watch.”

Hon Greg Hunt, 7 March, 2014
former Standing Council on Environment and Water
(incorporating the National Environment Protection Council)

National Environment Protection Council (NEPC)

On 13 December 2013, COAG replaced its 22 Standing Councils, Select Councils and governance fora with a set of eight Councils and the decision saw the revocation of the Standing Council on Environment and Water. Work is currently underway to resolve how its existing work would be handled in the future. In the interim, this website is currently maintained for historical purposes and is scheduled for archiving.

A new website for the National Environment Protection Council is currently under development.

Contents [show]

The National Environment Protection Council (NEPC), which is established under the National Environment Protection Council Act 1994 (Cth) and mirror legislation in other jurisdictions, continues to operate; fulfilling its legal and governance obligations.

NEPC has two primary functions as established by the NEPC Acts:

1. to make National Environment Protection Measures (NEPMs)
2. to assess and report on the implementation and effectiveness of NEPMs in participating jurisdictions.
In summary

• The Ambient Air NEPM was made in June 1998, setting Australia’s first national standards for air quality.
• It does not set a standard for fine particles (PM$_{2.5}$)
• Australia lags behind international standards.
• Air quality standards are routinely exceeded without consequence for polluters or regulators.
• Many of the most polluted air environments are not monitored. The focus is on ‘representative’ locations.
• There is minimal community involvement in setting or reviewing air quality standards.
• Particle pollution is a significant and growing problem in communities where coal is mined and transported.
STATEMENT BY PARTICIPANTS

Statement by air pollution experts, civil society organisations and air pollution-affected communities on the need for new air pollution laws.

The problem

Air pollution contributes to the premature death of over 3000 Australians each year. The serious health consequences from exposure to different sources of air pollution are now well established. There is consensus that there is no ‘safe’ level of exposure for many pollutants, and that there are harmful effects from exposure at levels well below the current air quality standards.

In many Australian communities, measured air pollution levels frequently exceed the current national standards without meaningful consequences for polluters. Whilst we know that the current standards are frequently exceeded, the lack of adequate monitoring in many locations means that we often don’t know by how much or how often many communities are exposed to the very serious health risks from air pollution. Without changes in the monitoring and enforcement of standards for current polluters and improved assessment and licensing of proposed new developments many communities will continue to be put at risk.
The Australian Medical Association has said that, “Current air quality standards in Australia lag behind international standards and have failed to keep pace with scientific evidence.” Last year a Senate Committee inquiry concluded air quality is a significant problem in many parts of Australia and recommended several new policies and programs.

**Political delay and inaction**

The Council of Australian Governments (COAG) has recognised that current air quality laws are deficient and in 2011 committed to developing and adopting a National Plan for Clean Air by the end of 2014. Despite COAG working on this reform since 2011, the Commonwealth Environment Minister recently announced that development of the Plan would be delayed for another two years, until July 2016. This is a cause of significant concern to the medical profession and to the community. Commonwealth and State and Territory Governments are not treating air pollution with the seriousness and urgency it deserves.

This delay reflects a broader pattern of inaction on air pollution by State and Commonwealth Governments, including a failure to implement the recommendations of the 2011 Ambient Air Quality National Environment Protection Measure (NEPM) review, and the 2013 Senate Inquiry into Impacts on Health of Air Quality in Australia.
What is needed?

The current regulatory system for air pollution is failing to protect Australian communities from the harmful effects of air pollution. Sixteen years after Australia adopted our first national air quality standards, the continuing lack of a compliance standard for $PM_{2.5}$ places Australia far behind world’s best practice in air quality regulation. The current arrangements for coordinated action by the States and Territories have many fundamental problems and have failed to ensure a strong and consistent national approach. Implementing the recommendations of the NEPM review and the 2013 Senate Committee would go some way towards improving regulation of air quality in Australia. However a more significant reappraisal of Australia's approach to air pollution regulation is needed.

- The State, Territory and Federal Governments should implement the NEPM review recommendations immediately.
- A compliance standard for $PM_{2.5}$ (fine particles) should be adopted immediately.
- The Commonwealth Government should legislate a National Air Pollution Prevention Act that is binding on all States and Territories, and establish a National Air Pollution Regulator to ensure that air pollution is effectively regulated. The National Regulator should have a responsibility to implement standards that prioritise the protection of human health and reduce the exposure of Australian communities to harmful air pollutants.
ENDORSED BY THE FOLLOWING ORGANISATIONS AND INDIVIDUALS

Environmental Justice Australia
Doctors for the Environment Australia
Nature Conservation Council of New South Wales
Greenpeace Australia
GetUp!
Friends of the Earth Australia
Clean Air Queensland
National Toxics Network
Mackay Conservation Group
Environment Victoria
Voices of the Valley, Morwell
Dr Dorothy L Robinson, Australian Air Quality Group
Dr Uta Wille - Assistant Dean, Faculty of Science, The University of Melbourne