

**REVIEW OF THE NATIONAL ENVIRONMENT PROTECTION
(AMBIENT AIR QUALITY) MEASURE
AIR QUALITY STANDARDS DISCUSSION PAPER**

Title: Name: Dr Marion Carey; Dr Martine Dennekamp, Prof Michael Abramson

Position: Senior Research Fellow Monash Sustainability Institute; Research Fellow and Professor of Clinical Epidemiology Department of Epidemiology and Preventive Medicine

Company: Monash University

Postal Address: Department of Epidemiology & Preventive Medicine, The Alfred

Suburb: Melbourne

State: Vic

Postcode: 3004

Telephone:

Facsimile:

Email address:

**All submissions will be published on the EPHC website unless clearly marked
"Commercial in Confidence".**

This template includes hidden text. To display hidden text select Tools then Options, click the view tab and check the box next to "hidden text".

The headings below have been extracted from the discussion paper. **Chapter 5: Issues to be considered in evaluation of NEPM standards** (page 140 of *AAQNEPM Review Air Quality Standards Discussion Paper*) provides further discussion on these questions.

ISSUES TO BE CONSIDERED

Q1. Is there sufficient new health evidence to support a revised standard and if so, for which pollutants?

The evidence supporting the significant health impacts of particulate pollution is consistent and very strong. What is needed now, particularly with PM2.5, is appropriate action to minimise further morbidity and mortality. A change of the advisory reporting standard for PM2.5 to a compliance standard is strongly recommended. A compliance standard for PM2.5 in the AAQ NEPM is needed to increase monitoring activity and drive air quality management action in the jurisdictions.

Q2. Does the current approach, which allows for a number of exceedences of the standard, meet the requirement for adequate protection or are there alternative methods that could

provide more consistency in the level of health protection associated with complying with the NEPM standards?

The current approach which allows for a number of exceedences does not provide adequate public health protection. Consideration should be given to the EU exposure reduction approach for PM2.5 in addition to limit values. Given that health impacts have been demonstrated at levels below current standards, and that a number of vulnerable subpopulations have even greater sensitivity than the average, continuous quality improvement should be the aim. To achieve this, it would be important to increase sampling sites beyond the current number in order to achieve better exposure assessment.

Q3. Should changes be made to the reporting protocols that would lead to a greater transparency and better understanding of the causes of exceedences in jurisdictions, the potential risk to population health, and management approaches being undertaken to address these exceedences?

Current monitoring and reporting practices appear inadequate to protect public health. The air quality standards are designed to reflect average air quality in an airshed and to not incorporate measurements from major industrial sources or heavy traffic flow areas. They are therefore likely to significantly underestimate real life exposures to many sections of the population, which are what translate into health impacts. In addition monitoring activity is currently not sufficient. For example the EPA Victoria website reports PM2.5 in only two sites in Victoria. There are no PM2.5 data reported on this website for the Latrobe Valley, an area which may be significantly affected by reduced air quality. The ability of average citizens to learn about air quality in their own areas is therefore very restricted.

Q4. Any other issues you wish to raise?

Climate change is likely to exacerbate problems with air quality in the future. It is therefore important that standards are rigorous, jurisdictional management is timely and effective and that there is sufficient investment in monitoring infrastructure. In jurisdictions such as Victoria, increasing risk of bushfires will be met with increased prescribed burning activity as recommended by the recent Royal Commission report. Prescribed burning will have significant impacts on air quality. This activity should not be included under exceedences as a natural event as for bushfire, but should be managed proactively and effectively in order to reduce public health impacts.