

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

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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 discussion document provides a detailed analysis of the health research conducted in Australia and overseas over the last decade. This analysis shows there are adverse health effects observed at or below the current Ambient Air Quality NEPM standards for all of the pollutants. State and national research has shown adverse health effects associated with ambient concentrations of carbon monoxide, nitrogen dioxide and sulfur dioxide in Perth, which are all well below the current Ambient Air Quality NEPM standards. Health impacts have also been associated with particles, ozone and lead.

Given the research indicates there is no lower threshold below which no adverse health effects are observed, in addition to the health research provided in the discussion document, there appears to be sufficient evidence to support all the Ambient Air Quality NEPM standards being assessed. The standard setting methodology released by the Environment Protection and

Heritage Council for consultation in November 2009 should be followed when revising the standards.

Incorporating benzene and BaP as part of the Ambient Air Quality NEPM is supported. However there would also need to be a cost effective screening process included to prevent ongoing monitoring requirements, where it is not necessary due to ambient pollutant levels being well below the specified standard. The Peer Review Committee, established under the Ambient Air Quality NEPM, have developed such screening criteria for the air pollutants currently considered by this NEPM.

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 Department of Environment and Conservation (DEC) appreciates the difficulties associated with an air quality standard that sets an allowable number of exceedences as addressed in the discussion paper, particularly for those pollutants such as PM2.5 and PM10 that do not present a threshold for the health effects associated with exposure.

However, under the provisions of the National Environment Protection Council Act 1994 the Ambient Air Quality NEPM standards became legally binding on jurisdictions when the Measure was made. The Ambient Air Quality NEPM requires jurisdictions to establish monitoring networks to assess compliance with the standards and implement actions where required to improve air quality so the standards and associated goals are met. The inclusion of allowable exceedences (or 'goals') should not in itself compromise the level of health protection as long as the number of allowable exceedences are few, the occurrences are infrequent and the events are brief in nature. DEC favours the continuation of an allowable number of exceedence events if the approach outlined below (in response to Question 3) is not achievable.

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?

DEC's responsibilities include managing the State's national parks, conservation parks, State forests, timber reserves and nature reserves. As a designated hazard management agency for bushfires in Western Australia, protecting the human population from the potential consequences of bushfire is one such obligation. These responsibilities and obligations are legislated in a variety of Western Australian statutes. The primary effective mitigation strategy available to land managers is the application of prescribed fire to manage flammable fuel loads to an acceptable level.

Both prescribed fire and bushfire produce smoke that contains many of the pollutants addressed in the Ambient Air Quality NEPM standards. Particles in smoke have been the primary concern for air quality resulting from biomass burning. DEC applies smoke management policies aimed at minimising the impact of smoke plumes on the health, welfare and economy of the Western

Australian community. These impacts are a consequence of implementing government policy and legislative responsibilities associated with prescribed fire and bushfire management. These policies and procedures are reflected in DEC internal management practices and the Perth Air Quality Management Plan, which use the Ambient Air Quality NEPM standard for PM10 to set performance targets.

DEC supports the notion that 'natural' and 'exceptional' events are excluded from the assessment of whether the air quality in a region is in compliance with the standards or not. DEC considers that there would need to be strict guidance on what constitutes an 'exceptional' or 'natural' event to ensure national consistency. Under such arrangements, bushfire may be deemed a 'natural' event and prescribed fire could be considered an 'exception' event, if the activity complied with smoke management policies. If bushfire or prescribed fire were to contribute to an exceedance of an Ambient Air Quality NEPM standard, it should be recognised and reported as such. For annual reporting purposes and communication with the public, justification and analysis would also be important.

As identified in the review, taking into account the expected impacts of climate change, such as an increase in the frequency and severity of bushfires, also needs to be considered when reviewing the reporting protocols.

Q4. Any other issues you wish to raise?

It is understood why the discussion paper does not discuss how the Ambient Air Quality NEPM standards may or may not be applied or referenced by jurisdictions outside the NEPM requirements. DEC agrees this is a jurisdictional matter and should be outside the scope of this discussion paper. However comments have been received by DEC during the consultation period in relation to a range of issues including the nature of the monitoring network, the NEPM's relevance to licensing and permitting, the implications for setting targets, limits, and monitoring regimes for licences, and the level of sampling required in regard to licence conditions and compliance. It would be useful to reiterate the purpose of this NEPM through the review process.