



# Occupational Health Society of Australia (WA)

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9 October 2014

Executive Officer  
National Environment Protection Council  
Department of the Environment  
GPO Box 787  
CANBERRA ACT 2601  
e-mail: [NEPC@environment.gov.au](mailto:NEPC@environment.gov.au)

Dear Sir/Madam

**Re: OHSWA Response: Draft Variation to the National Environment Protection (Ambient Air Quality) Measure Impact Statement**

Please find herewith the Society's response on the Impact Statement.

## **Input on the options outlined in the Impact Statement:**

Q1. Do you agree with the introduction of an annual PM<sub>10</sub> standard, given the apparent adverse health effects of coarse particles and their prevalence in some regions?

**Response:**

**Yes – the evidence in favour is overwhelming.**

Q2. Do you support upgrading the current AAQ NEPM advisory reporting standards for PM<sub>2.5</sub> to compliance standards?

**Response:**

**Yes, this upgrade is essential.**

Q3. Do you support the preferred numerical values for new/revised 24-hour and annual PM<sub>2.5</sub> and PM<sub>10</sub> standards? Which value for the 24-hour PM<sub>10</sub> standard do you consider to be the most appropriate, and why?

**Response:**

**The numerical values supported are:**

PM <sub>2.5</sub>	<b>8 µg/m<sup>3</sup> subject to a documented commitment for gradual reduction to 6 µg /m<sup>3</sup></b>
PM <sub>10</sub>	<b>40 µg /m<sup>3</sup></b>

PO Box 171, Belmont WA 6984  
Telephone: 6272 6120  
[www.ohswa.marcsta.com](http://www.ohswa.marcsta.com)  
E-mail: [safety@marcsta.com](mailto:safety@marcsta.com)  
ABN: 83 170 105830

**It is critical that a continual improvement approach is taken and it is both achievable and crucial to reducing the adverse health effects of current air pollution (see HRA project pp vi-vii).**

- Q4. What is your preferred option for the form of the 24-hour PM<sub>10</sub> and PM<sub>2.5</sub> standards? Should the options be trialled?

**Response:**

**Option 3 (P15). We consider the option should be implemented.**

- Q5. Do you have any comments regarding the possible inclusion of PM metrics, other than PM<sub>10</sub> and PM<sub>2.5</sub>, in the future?

**Response:**

**Yes, there is a considerable amount of research globally directed at ultrafine particles and nano-particles in particular, which could warrant implementation of a standard below PM<sub>2.5</sub>. The progress should be closely monitored so that prompt action can be taken to respond at the earliest opportunity.**

- Q6. Do you agree with the preferred form of the exposure-reduction framework under which an exposure index based on monitoring would be used to track population exposure for major urban areas?

**Response:**

**While the current monitoring networks can provide an indication of the exposure represented by each monitoring site, the exposure framework such as the one applied in the EU, would be much more appropriate and desirable given the health information provided in the HRA projects. In view of the predicted gains in reducing the health costs the 'very significant investment of resources' required would be warranted and provide long term gains to the Australian populace .**

### **Additional feedback on the Impact Statement**

#### **Health Effects**

The Impact Statement does not give due weighting to the accumulating evidence of the carcinogenicity of diesel particulate which is recognised internationally as a major concern in highly populated areas and those adjacent to major roads and highways. There has been no meaningful attempt in Australia to alert the populace to the dangers of exposure from diesel powered transport or to assess exposure levels.

The trend to high density living in urban areas can only exacerbate the problem.

Major steps being taken on air pollution in Hong Kong including the replacement of catalytic converters in minibuses and taxis, and the replacement of more than 80,000 diesel vehicles by 2019. (South China Morning Post, 6 Oct 2014).

### **Air Pollution**

- OECD (21/5/14)  
Air pollution has now become the biggest environmental cause of premature death, overtaking poor sanitation and a lack of clean drinking water. In most OECD countries, the death rate from heart and lung disease caused by air pollution is much higher than the one from traffic accidents.
- The Lancet Oncology (24/9/14)  
Particulate matter air pollution contributes to lung cancer in Europe
- IARC Working Group (Dec 2013)  
The IARC Working Group unanimously classified outdoor air pollution and particulate matter from outdoor air pollution as carcinogenic to humans. There was limited evidence for bladder cancer.
- Nanotubes  
IARC Advisory Group (14/5/14) recommends that multi-walled carbon nanotubes be given high priority for assessment as a human carcinogen.

### **HRA Report**

The three hypothetical scenarios listed on pages vi and vii point to the human benefits of reductions in exposure to ambient contaminants. It is apparent that a progressive policy of exposures reduction be pursued with zeal and the obstacles overcome.

Current ongoing global research is identifying a range of negative health outcomes from exposures to coarse and ultra-fine particles and it seems inevitable that many of the health outcomes previously without apparent causation are now being linked to environmental and/or workplace exposures to contaminants.

There is no justification for not proceeding with a continual reduction objective on both health and economic grounds.

Regular reviews of air quality standards should be conducted to assess the opportunities for continuous exposure reductions.

Australia is in an advantageous situation geographically to maintain the highest possible standards of air quality and this should be our objective.

The multi-sectoral approach engaging all relevant sectors referred to on Pvii should be implemented as a priority.

Yours faithfully

**PATRICK B GILROY AM**  
SECRETARY