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## 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.

**I**SSUES TO BE CONSIDERED

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

YES, there is growing evidence worldwide for adverse health effects from exposure to ultrafine particles. Since 1998 it is known that these interact with human body at cellular level, i.e. with individual cells, and since 2002 it is known that these enter in the bloodstream and then are deposited to different organs. This is not something new for the Australian Government – see "Health Impacts of Ultrafine Particles", report for the Department of the Environment and Heritage, 2004.

Apart from this, recent research links exposure to these with Type 2 diabetes.

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

Review of the National Environment Protection (Ambient Air Quality) Measure – Air Quality Standards Discussion Paper provide more consistency in the level of health protection associated with complying with the NEPM standards?

If the ultimate objective is to provide adequate protection for the Australian population of the adverse health effects of air pollution, and given that "The results of epidemiological studies worldwide are indicating that there are no threshold for the health effects associated with exposure to these pollutants", then the appropriate approach should be "Exposure Reduction" for the whole population.

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?

Without relevant and appropriate information any decisions are made in blind or are based on intuition at best. This is not good enough. Reporting protocols should be developed in order to provide relevant and appropriate information, which should include ultrafine particles and "natural events", thus ensuring greater transparency. Currently used mass concentrations do not provide relevant and appropriate information regarding ultrafine particles, therefore their number (and potentially their total area) should be considered. Strict guidance for the assessment and reporting should be developed and included as a schedule to the NEPM and annual reporting should include progress against these goals.

Q4. Any other issues you wish to raise?

RE: 6.1 The next steps

No matter what will be decided and implemented – there will be impacts for every individual, family, employer, community and the whole Australian society. Therefore it is important to get "an assessment of environmental, economic and social impacts" (p.145). I would add health and sustainability impacts.

For quite some time now I argue that Sustainable Development and Sustainable Health are inextricably linked (see http://icare.academia.edu/JordanPanayotov/Talks). I argue also that any other Impact Assessment ultimately is a Health Impact Assessment (HIA), but incomplete one. In other words, any other Impact Assessment should have a section "Health Impact Assessment" within. However, there are problems with current HIA methodology which is not up to the task especially in this case. My contribution to HIA methodology offers solution for these deficiencies.

At the Independent Centre for Analysis & Research of Economies we have the knowledge, experience and expertise to assist you with the health and sustainability impacts.