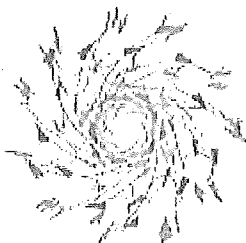


DOMESTIC ENERGY USERS' NETWORK



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Submission, Air Quality standards revision

9 July 2010

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DEUN welcomes the chance to submit on the discussion document "Proposed amendments to the National Environmental Standards for Air Quality."

<http://www.mfe.govt.nz/publications/air/national-air-quality-standards-discussion-document/national-environmental-standards-air-quality-discussion-document.pdf>

DEUN representatives have given some consideration to drafts of this submission but time has not allowed them to consult their membership. Membership of DEUN currently comprises:

- Age Concern NZ
- Child Poverty Action
- Grey Power Federation
- Public Health Association
- Rural Women NZ

Comments on problem definition and policy objectives, questions 1-4

The problem addressed by this review is that industry can't get resource consents for polluting boilers in areas where air quality is close to the acceptable limit. At present this is a single yearly exceedance of the World Health Organisation standard, which is 50 microgram of PM10 per cubic meter of air.

DEUN believes another problem is at least as serious. By limiting numbers of allowable wood burners, several districts including Christchurch, Nelson and some Otago locations have deprived many householders of their most affordable heating options. We note that Otago especially has an Air Plan that is far more stringent than the national standard.

The Technical Advisory Group (TAG) recognized evidence suggesting that deaths from cold houses may exceed deaths from PM10 emissions in cases where wood burners have been removed, but the discussion paper did not include that in its problem definition.

The discussion document frames its policy objectives in terms of benefits to industry only. During its preparation document, over a hundred industries were invited to discuss their issues with the Technical Advisory Group (TAG). At least one health advocate was also invited to meet the TAG, but the main advocate for standards to enable affordable wood burning, AIR (Association for Independent Research) was not invited.

General comments

The discussion document's preferred solution to address industry's complaints is to relax the air quality standard, and extend the time within which the standard is implemented. The Regulatory Impact Statement acknowledges that the cost of this solution outweighs the benefit.

DEUN agrees with a temporary relaxation of the standard, but only in order to determine the most cost-effective way of reducing actual levels of harmful particulates. We suspect that conversion of the most polluting industrial and institutional (health board and school) coal boilers would reduce harmful emissions at a lower cost than removing domestic wood burners.

DEUN suggests the single most cost-effective solution is to ensure seasoned and kiln-dried firewood are available at affordable prices (not only from supermarkets at \$8 per bag).

Comments on options to reduce air pollution: questions 5-15

The Technical Advisory Group's report

<http://www.mfe.govt.nz/publications/air/national-air-quality-standards-getting-the-balance-right/air-quality-getting-the-balance-right.pdf>

suggested a suite of nine measures to reduce pressure on industry, while maintaining clean enough air to meet internationally accepted standards:

- 1) Increase the number of permitted exceedances (of 50 ug/m³) from 1 to 3
- 2) Exclude exceptional events from being counted as exceedances
- 3) Remove all industry consent restrictions
- 4) Extend timeline to 2020 (maximum)
- 5) Place a greater focus on education
- 6) Require mandatory reporting (PM10 monitoring data)
- 7) Require councils to submit airshed implementation plans
- 8) Increased ministerial oversight
- 9) Investigate funding links (link funding in areas without a plan in place)

The discussion document combines these measures into five suites of "options", and asks for comments on the options rather than the measures themselves.

Option 1 was the recommendations of the TAG, listed above, but modified to comply with what is allowed under the Resource Management Act. It weakened the standard, but offset that with its measures 5-9.

Options 2 and 3 retain most of the existing standard, leading to high air quality but at significant cost to both industry and households.

Options 4 and 4a involve somewhat less Ministerial oversight than recommended by the TAG, and reduce the focus on education.

The discussion document prefers options 4 and 4a, rather than options with more active measures, though those would do more to actually reduce particulate emissions.

DEUN provisionally prefers Option 1, because it gives time and latitude for households and industry to invest in cleaner burning appliances and systems, and devotes some resources to education and other cost-effective measures. We believe that some “complementary measures” including “Good Wood” programmes such as are used in Nelson and Blenheim, could be very effective in reducing air pollution without needing to remove older wood burners.

Costs and benefits

<http://www.mfe.govt.nz/publications/air/national-air-quality-standards-nzier/national-environmental-standards-air-quality-nzier.pdf>

Compared with the 2004 cost-benefit analysis (CBA) that supported the existing air quality standard, the present CBA is much more realistic and comprehensive. The previous one did not consider the cost to householders of losing their most affordable heating option.

The present (CBA) recognises that many householders who are required to remove log burners will replace them with plug-in electric heaters. Their estimate is for the average house. Our experience is that in colder houses it takes more than one heat pump to substitute for a large wood burner, so the capital and running costs are much higher than estimated in the CBA. Also heat pumps may require more servicing and be replaced earlier than corresponding efficient wood burners.

The benefit of wood burning in releasing no carbon emissions was not included in the CBA. Regional councils as part of an Air Plan would do well to consider planting or encouraging firewood plantations, to reduce the significant cost and carbon emissions of transporting firewood hundreds of kilometers.

Measures not considered in the cost-benefit analysis

*Good wood schemes, very effective in Nelson and Blenheim. In Blenheim all firewood merchants agreed in 2008 to sell only seasoned firewood; in 2009 there were no exceedences compared to an average of 7 exceedences over the previous five years.

* Kiln-drying of firewood. City Firewood in Christchurch charged \$67 per cubic meter of kiln-dried pine in 2009, – which gave New Zealand’s cheapest heat energy per unit of end-use heat from purchased fuel (wood, firelogs, or electricity).

* subsidizing conversion of industrial coal burners to wood – possibly as little as \$100,000 per site, [CBA page xx] or new wood-chip boilers costing on the order of \$1m but very cheap to run and giving CO2 reduction benefits [Eduard Ebbinge, pers.comm.]

Research needs

- * Statistical correlation of deaths and hospital admissions with the indoor environment
- * differentiate the health effects of wood smoke compared to vehicle pollution
- * microscopic examination of fine particles from different sources – wood smoke may have larger particles which are broken up into fine particles within the measuring apparatus
- * consider a standard for annual cumulative emissions instead of exceedences of a daily standard, in view of the fact that the health impacts of fine particles are mainly cumulative

Discussion

Regions with polluted airsheds are required to set an Air Quality plan to implement the National Air Quality Standard. Environment Canterbury (Ecan), in developing its Air Quality Plan, set a maximum number of allowable household wood burners, and a timeline for replacing older wood burners by clean heating appliances. The Council voted some \$50 million to subsidise its programme of home insulation and clean heat.

ECan described this as “purchasing clean air” while improving quality of life for those who received the home retrofits. But some householders with new heat pumps found their power bills unaffordable. Their increased power bills were not counted in the original cost-benefit analysis. The present CBA does include that effect, which is a large part of the financial cost [check recent addition to “extracts”].

DEUN considers that regional air quality should be funded regionally, particularly for regions such as Otago which aim to achieve air quality higher than the national standard. In contrast, the discussion document appears to expect Councils not to fund air quality improvement.

Recommendations

Option 1 is preferred, in order to extend the compliance period, to give time for complementary measures to improve air quality, without requiring removal of wood burners which are the most affordable heating options of many of DEUN’s constituency.

The most important complementary measure is support for regional authorities to ensure seasoned and kiln-dried firewood are available at affordable prices in their regions. “Supermarket firewood” at \$8 per 40 litre bag is not affordable.

The recommended extension of time, till 2018, is supported. This must not be squandered.

The time should be used for scientific research on the physical and chemical characteristics, and actual health impacts, of particulates from different sources – home wood burning, industrial coal burning, and vehicles. Air quality standards should be revised in due course based on the research results.