

Testimony of Deborah Shprentz
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on
EPA's OAQPS Staff Paper – First Draft, on the
Review of the National Ambient Air Quality Standards (NAAQS)
for Particulate Matter (PM):
Policy Assessment of Scientific and Technical Information, August 2003

Clean Air Scientific Advisory Committee (CASAC) Meeting
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The American Lung Association appreciates this opportunity to comment on EPA's first draft Staff Paper on the review of the PM NAAQS. EPA runs the NAAQS review process with an extraordinary degree of openness and transparency and for that we are grateful. While some may argue that the publication of the draft Staff Paper is untimely, we applaud the Agency for providing an opportunity for public review and comment on their presentation of the science, on the initial policy recommendations, and on additional analyses that should be performed to clarify issues.

Our message to you today is very simple: CASAC and EPA should preserve and strengthen the policy options that have been laid out in the draft Staff Paper.

We believe EPA staff have done an excellent job in the synthesis and interpretation of the scientific database on the health effects of particulate air pollution. The conclusions of the CD and Staff Paper are well within the mainstream of scientific opinion. Industry critics, so vocal at these meetings, are the real outliers. Those who accuse EPA of "cherry picking" scientific studies that show positive results are themselves guilty of harping on a selected few studies designed to support their point of view.

The weight of the scientific evidence from hundreds of scientific studies clearly supports strengthening the air quality standards for fine particles as recommended by EPA staff scientists.

Each microgram that EPA lowers the annual average fine particle standard will save literally thousands of lives each year. Clear evidence supports EPA lowering the bottom end of the range for this standard, to accommodate margin of safety considerations. This would be consistent with results from long- and short-term studies showing effects at levels at or below the lower end of the range. From a public health perspective, the highest priority must be paid to strengthening the annual average fine particle standard.

A tighter 24-hour fine particle standard is also clearly justified. The lower end of the proposed range is too high to provide a margin of safety for susceptible people such as children, the elderly, and those with pre-existing respiratory or heart conditions. The Lung Association believes the lower end of the range must extend at least down to 25 ug/m³, the level of the 24-hour standard proposed by California last year. Further, EPA

must consider alternative forms of the standard. If the intent of the 24-hour standard is to protect the public against short-term peaks, then a standard that permits 21 days of unlimited levels of air pollution fails to protect the public against those peaks. More critically, if one day of bad air is sufficient to sicken or even kill, why should any community have to endure multiple days of deadly air before regulatory action is triggered, particularly if the intent of the short-term standard is to protect against these kind of events?

We agree with EPA that the health evidence justifies setting a separate standard for coarse particles, and we strongly support setting both an annual average and a 24-hour average standard.

If coarse particles comprise 40-50 percent of PM₁₀, it appears that the upper end of the proposed range for the annual average standard is equivalent to a PM₁₀ concentration of 60-75 µg/m³, well above the current annual average PM₁₀ standard. This seems unreasonable in light of the wealth of evidence on adverse effects of PM₁₀.

Similarly, for the 24-hour coarse particle standard, the upper end of the proposed range is too high as compared to the current PM₁₀ standard. We believe the short-term studies reporting associations of coarse particles with hospital admissions, respiratory effects and mortality at concentrations ranging from 33 µg/m³ down to 11 µg/m³ suggest that both the upper and lower end of the range are too high to protect against these effects.

The Lung Association would like to see additional analyses done to inform the decision-making process. Specifically:

1. Health risk analysis of levels below the proposed ranges.

There is no way to evaluate the adequacy of the ranges without looking at the health implications of levels below the proposed range.

2. Analysis of alternative forms of the 24-hour standard, such as the single exceedance form, the 4th highest concentration over three years, and the 99th percentile form.

EPA has not provided justification for its selection of the 98th percentile form of the 24-hour standards. Alternative forms of the standard would be more effective at meeting the stated goal of the short-term standard – to prevent exposure to short term spikes that are not prevented by the annual average standard.

3. Analysis of specific health implications of the 98th percentile form.

In how many areas where monitors attain the annual average standard do readings exceed 25µg/m³? How many days each year do such excursions occur and how high do concentrations get? How many people are affected and what are the increased risks to public health?

4. Analysis of the spatial averaging issue.

How many more people would be protected if the spatial averaging loophole is eliminated?

In summary, we believe the draft Staff Paper provides a strong rationale for strengthening both the annual average and the 24-hour fine particle standards.

EPA needs to consider lowering the bottom end of the ranges to ensure that a margin of safety is given sufficient consideration.

Further, EPA needs to consider alternative forms of the standard that do not allow for so many exceedance days to occur.

We further support establishment of long- and short-term coarse particle standards, albeit with more stringent ranges than proposed.