

**Preliminary Comments of the
American Lung Association
on U.S. EPA's Draft Integrated Review Plan (October 16, 2007) for the
National Ambient Air Quality Standards for Particulate Matter**

November 26, 2007

I am Deborah Shprentz and I serve as a consultant to the American Lung Association, and have followed the EPA reviews of the air quality standards for many years.

We are pleased that EPA has prepared this drafted Integrated Review Plan for CASAC and public review. We note with interest that the proposed schedule envisions that EPA will adhere to the statutory five-year review requirement for the PM NAAQS. We recognize the difficulty and complexity of this review and would like to emphasize that the Agency will need to budget the staff and resources necessary in order to meet this ambitious schedule.

There are a number of compelling scientific and policy issues that were left unresolved in the last review. The most important of these were the failure to lower the primary annual average standard for fine particles as recommended by CASAC, the deregulation of PM₁₀, and the failure to set protective new standards for coarse particles.

First, with respect to the annual standard for PM_{2.5}, evidence presented in the last review made clear that the current standard fails to protect public health. CASAC arrived at that conclusion and recommended a more protective annual standard, a recommendation that, unfortunately, the Administrator disregarded. CASAC's conclusion is bolstered by several important new studies published in the last several years that find associations between long-term exposures to PM and various respiratory and cardiac health endpoints.

Second, the daily PM₁₀ standard of 150 µg/m³ reaffirmed in the last review was set over 20 years ago and is plainly inadequate in light of literally thousands of more recent PM₁₀ studies showing effects at lower concentrations. It is particularly galling that EPA also deregulated PM₁₀ in the last review cycle by dropping the annual average standard.

Third, we concur that it is appropriate for EPA to again consider establishing a PM_{10-2.5} standard to protect against coarse particle exposures. Studies from other countries and occupational exposure studies were inexplicably excluded from the last review and should be given full consideration particularly in the review of the coarse particle standard.

In addition, the draft Integrated Review Plan raises a number of new issues that I would like to focus on today.

We challenge the proposed inclusion of an exposure assessment. We would like to remind EPA and the panel that the National Ambient Air Quality Standards are strictly health-based standards. Under the law, they cannot be based on cost, or risk, or technical

feasibility, or the number of nonattainment areas. Under the law, they cannot be based on the number of people exposed or the extent of their exposure. In the review of the ozone standard, EPA used the exposure assessment to develop a faulty “exposures of concern” metric that the Administrator relied upon to justify a weaker proposed standard than recommended by CASAC. In the case of PM, EPA proposes to base the risk assessment on concentration-response functions drawn from epidemiological studies. These studies measure community health in relation to ambient air quality monitors. An exposure assessment is not necessary for a risk assessment based on epidemiological studies.

With respect to the proposed scope of the review: we disagree with EPA’s habitual treatment of diesel pollution as a wholly separate entity from overall particulate air pollution. In the review, the Integrated Science Assessment, risk assessment, and policy assessment must fully consider the health effects of particulate matter from all sources, including diesel. We oppose isolating any sources of particulate matter from this review, whether they are from diesel or agricultural or mining sources.

EPA needs to fully evaluate the considerable emerging literature on the effects of ultrafine particles, with an eye toward possible regulation of this fraction of the particulate pollution mix.

EPA should review the need for a sub-daily standard. Mounting evidence shows that even a 24-hour standard is inadequate to protect against fluctuations in exposures and short-term peaks that can occur over periods of minutes or hours.

In addition to the sub-daily standard, we are pleased that EPA has flagged the need to consider additional health endpoints of concern, as well as additional potential populations at risk, and to conduct a geographically broader risk assessment. The EPA benefits analysis typically applies risk functions nationwide, a practice that the risk assessment should replicate.

We challenge the increased focus on uncertainty. We would like to remind this committee that under the Clean Air Act, standards must be set at levels that will protect against effects that are anticipated in the literature, but not yet proven. The present administration at EPA seems to have forgotten that requirement. Instead, they have contorted this notion into a pursuit of ever more complex uncertainty characterizations that are focused solely on the benefits side of the equation.

With respect to the monitoring issues raised by the plan, we are pleased that EPA is re-examining the fallacy of just looking at “population-based” monitors for compliance purposes, and is considering expansion of the monitoring network to include greater hot-spot monitoring as well as monitoring in rural areas. We are also pleased that EPA will be giving further consideration to the need for a broader coarse particle monitoring network.

Thank you for the opportunity to provide these comments.