



August 13, 2010

Air and Radiation Docket and Information Center
U.S. Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Policy Assessment for the Review of the Particulate Matter National Ambient Air Quality Standards, Second External Review Draft June 2010, Docket ID No. EPA-HQ-OAR-2007-0492

Dear Docket Personnel:

On behalf of our 1000 members, I write to convey our serious concerns about EPA's possible decision to revise the PM10 NAAQS to a level approximately twice as stringent as the current standard. We do not believe such a revision is warranted by science, and we urge the EPA to retain the current standard.

The current standard of 150 $\mu\text{g}/\text{m}^3$ was set conservatively low based on historically flawed health studies. In fact, in the 2006 final PM NAAQS rule, EPA acknowledged that the 150 $\mu\text{g}/\text{m}^3$ was set based on a desire to be cautious and not on clear evidence that this very stringent level was necessary to protect against adverse public health effects. This is especially true for the type of rural coarse PM that predominates on agricultural operations.

On July 8, 2010, EPA published in the Federal Register the second draft Policy Assessment for the Review of the Particulate Matter National Ambient Air Quality Standard. In that document, EPA staff concluded that, depending on the emphasis placed on the evidence and uncertainties, the Administrator would be justified in either retaining the current PM10 NAAQS or in revising it in the range of 65-85 $\mu\text{g}/\text{m}^3$, a level that is approximately twice as stringent as the current standard. If EPA were to adopt a level from 65-85 $\mu\text{g}/\text{m}^3$ many more nonattainment areas than currently exist would require designation, and agricultural operations would be economically devastated since controlling dust to such a level would be highly costly if not impossible in many areas of the US.

In addition, contrary to EPA assertions, a PM10 NAAQS in the range of 65-85 $\mu\text{g}/\text{m}^3$ with a 98th percentile form is not equal to the current standard of 150 $\mu\text{g}/\text{m}^3$ with a 99th percentile form. While they may be equal in some eastern urban areas of the U.S., they are not equal in agricultural areas where rural dust dominates. Such a revised standard would effectively target rural areas such as South Dakota and would result in widespread nonattainment areas throughout rural America. If EPA is intending to continue protection at the same level as the current PM10 level, then it should retain the current standard and not revise both the level and the form with an analysis indicating the level of protection will

remain the same. *We urge the EPA to give serious consideration to the significant economic hardship a revised standard would cause to rural agricultural areas when making this important decision.*

Another area of concern is the fact the EPA acknowledges concerns with the exposure measurement data used in the underlying epidemiological studies that form the basis for a possible reduction in the standard but then discounts the error by stating that it results in a bias toward the null – meaning that the exposure data measurement error would tend to mask the effects of coarse PM. In this way, EPA discounts the exposure measurement error as a basis for retaining the current coarse PM standard, since it concludes that the actual health effects in the epi studies would only be greater than actually shown. Yet, the fact is that recent studies done on exposure measurement error demonstrate that the bias can be either positive or negative, meaning that any indication of health effects from coarse PM studies may actually be less than shown in the studies (and not greater, as assumed by EPA) and could be negative as shown in other epi studies cited by EPA. (Igor Burstyn, "Measurement Error and Model Specification in Determining How Duration of Tasks Affects Level of Occupational Exposure" Annals of Occupational Hygiene 2009, 53(3):265-270.)

In addition, studies have shown that even a bias toward the null does not guarantee the observed estimate will be an underestimate, concluding that “exposure error can spuriously increase the observed strength of an association even when the bias from the error is towards the null.” (A. Jurek, S. Greenland, G. Maldonado, T. Church, "Proper Interpretation of non-differential misclassification effects: expectations vs observation," International Journal of Epidemiology 2005; 34:680-687.) The study further states “It is incorrect to claim (as authors often do) that the estimate from a study must be an underestimate because the bias is towards the null.” *Id.*

Furthermore, the key evidence relied on by EPA for suggesting a lower level for the PM10 standard is flawed. Dust storm studies relied on by EPA had PM10 levels many times higher than even the current 150 $\mu\text{g}/\text{m}^3$ and are therefore not a reliable basis on which to base a decision to reduce the standard. The Zanobetti and Schwartz study suffers from a number of flaws as previously analyzed by Dr. Jonathan Borak, Clinical Professor of Epidemiology & Public Health and Associate Clinical Professor of Medicine, Yale University School of Medicine, including significant exposure measurement error given its reliance on a highly suspect use of a county wide average difference method for determining coarse PM levels of exposure, and other flaws.

Finally, EPA’s acknowledgement that the science on coarse PM is so uncertain that it is unable to conduct a quantitative risk assessment further supports retention of the current standard.

It is for all the above reasons that we urge the EPA to retain the current PM10 NAAQS and not revise it. Thank you for your consideration of our comments.

Regards,



Bryan Nagel, President