



August 13, 2010

Air and Radiation Docket and Information Center  
Environmental Protection Agency  
Mail Code 2822T  
1200 Pennsylvania Ave NW  
Washington, DC 20460

Attention: Docket ID No. EPA-HQ-OAR-2007-0492

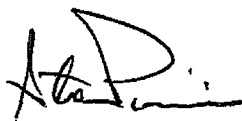
Thank you for the opportunity to provide comments on EPA's "Release of Second Draft Document Related to the Review of the National Ambient Air Quality Standards for Particulate Matter" as published in the Federal Register on July 8, 2010. According to the Policy Assessment for Particulate Matter (PM), EPA would be justified in retaining the current level of  $150 \mu\text{g}/\text{m}^3$  for regulating  $\text{PM}_{10}$ . The South Dakota Department of Environment and Natural Resources (DENR) strongly supports retaining the current standard for  $\text{PM}_{10}$ . The following comments taken directly from EPA's Policy Assessment support DENR's recommendation:

- On page 2-26: "...the available evidence does not generally allow distinctions to be drawn between the PM indicators in terms of whether populations are more susceptible to a particular size fraction (i.e.,  $\text{PM}_{2.5}$  and  $\text{PM}_{10-2.5}$ )."
- On page 3-6: "Staff concluded that limitation in the monitoring network and in the health studies that rely on that monitoring network, which would be the basis for estimating  $\text{PM}_{10-2.5}$  health risks, would introduce significant uncertainty into a  $\text{PM}_{10-2.5}$  risk assessment such that the risk estimates generated would be of limited value in informing the review of the standard. Therefore, staff concluded in the RA that a quantitative risk assessment of  $\text{PM}_{10-2.5}$  is not supportable at this time..."
- On page 3-9: "a five-level hierarchy that classifies the overall weight of evidence using the following categorizations: causal relationship, likely to be a causal relationship, suggestive of a causal relationship, inadequate to infer a causal relationship, and not likely to be a causal relationship...the ISA concludes that available evidence is *inadequate to infer a causal relationship* between long-term  $\text{PM}_{10-2.5}$  exposures and various health effects..."
- On page 3-11: "Despite differences in the approaches used to estimate ambient  $\text{PM}_{10-2.5}$  concentrations, the majority of multi- and single-city studies have reported positive associations between  $\text{PM}_{10-2.5}$  and mortality, though most of these associations were not statistically significant..."

- On page 3-14: "Little is known about how PM<sub>10-2.5</sub> composition varies across these locations and how that variation could affect particle toxicity (US EPA, 2009a, sections 2.3.3, 2.3.4, 2.4.4). However, the limited available evidence suggests that specific components of thoracic coarse particles tend to comprise different fractions of PM<sub>10-2.5</sub> mass in different environments (e.g., urban versus rural environments)..."
- On page 3-15: "Specifically, the ISA concludes that there is greater error in estimating ambient exposures to PM<sub>10-2.5</sub> than to PM<sub>2.5</sub> and that such uncertainty is a particularly relevant consideration when interpreting PM<sub>10-2.5</sub> epidemiologic studies. Contributing to this uncertainty is the relatively limited spatial coverage provided by existing PM<sub>10-2.5</sub> monitors (US EPA, 2009a, sections 2.2.3, 2.3.3, 2.3.4, 3.5.1.1 and see above). As discussed above, a national network to monitor PM<sub>10-2.5</sub> is not in place, limiting the spatial area over which PM<sub>10-2.5</sub> concentrations are measured. In addition, based on the limited available evidence, the ISA concluded that "there is greater spatial variability in PM<sub>10-2.5</sub> concentrations than PM<sub>2.5</sub> concentrations, resulting in increased exposure error for the larger size fraction" (US EPA, 2009a, p. 2-8) and that available measurements do not provide sufficient information to adequately characterize the spatial distribution of PM<sub>10-2.5</sub> concentrations..."
- On page 3-16: "The ISA also notes that the potential for confounding by co-occurring pollutants, particularly PM<sub>2.5</sub>, has been addressed in only a relatively small number of PM<sub>10-2.5</sub> epidemiologic studies, introducing additional uncertainty into the interpretation of these studies (US EPA, 2009a, section 2.3.3). This is a particularly important consideration given the relatively limited body of experimental evidence available to support the plausibility of associations between PM<sub>10-2.5</sub> itself and health effects reported in epidemiologic studies."
- On page 3-16: "Another uncertainty results from the relative lack of information on the chemical and biological composition of PM<sub>10-2.5</sub>, and the effects associated with the various components..."

In summary, the EPA Policy Assessment justifies retaining the current level of 150  $\mu\text{g}/\text{m}^3$  for regulating PM<sub>10</sub>. Therefore, DENR urges EPA to maintain the PM<sub>10</sub> standard at its current level. Thank you again for giving us the opportunity to comment on the Policy Assessment and we look forward to EPA retaining the PM<sub>10</sub> standard at 150  $\mu\text{g}/\text{m}^3$ .

Sincerely,



Steven M. Pirner, P.E.  
Secretary  
Department of Environment and Natural Resources



Jon L. Farris  
Acting Secretary  
Department of Agriculture

cc: Senator Tim Johnson  
Senator John Thune  
Representative Stephanie Herseth Sandlin  
James Martin, Regional Administrator, EPA Region 8  
Clint Allen, Chair, Rapid City Area Air Quality Board