



NCBA: The Voice of the
U.S. Cattle Industry

Coarse Particulate Matter: Dust in the Wind

Rural or Urban, It's Ridiculous to Consider Regulation of 'Dust in the Wind.'

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Coarse PM Facts *Did you know?*

✓ Ranchers employ environmentally friendly practices including windbreaks, watering down dirt roads and using sprinklers to reduce dirt in cattle pens. Many activities are mandated and/or monitored by clean air permits or committees.

✓ The studies cited to support regulating urban dust in the wind are fatally flawed, leading scientists agree.

✓ Requirements to regulate dust are undisputedly unattainable and the proposed non-science based levels would put American farmers and ranchers out of business.

✓ There has never been a valid coarse PM standard based on coarse PM evidence. Right now, EPA's proposed air quality standard is based on FINE PM measurements from the 1950s.

✓ The 1997 coarse PM10 standard was vacated by the D.C. Circuit Court of Appeals and set aside as confounded, because it included both fine and coarse

It's Plain Ridiculous to Consider Regulation of 'Dust in the Wind.'

- ➔ Take away the jargon: 'Coarse Particulate Matter' or fugitive dust is literally 'Dust in the Wind.'
- ➔ You manage fugitive dust with **proactive dust control measures**, not by unscientific, unempirical regulatory standards. It is impossible for Dust in the Wind to be regulated in this manner.
- ➔ The amount of Dust in the Wind remaining after using Best Management Practices from farm, ranch and cattle operations **has never been demonstrated to have adverse impacts on health at ambient levels.**
- ➔ **Under the EPA National Ambient Air Quality Standards (NAAQS), air quality standards must be about protecting public health.** These standards cannot be arbitrarily imposed without scientific backing.
- ➔ For more than 30 years the EPA has **excluded these dusts** in making determinations of ambient compliance because **there is no sufficient evidence to support.**

Scientific Evidence Does NOT Suggest Customary 'Dust in the Wind' Levels Correlate With Actual Human Health Problems

- ➔ Many world renowned scientific experts, including members of the EPA's Clean Air Scientific Advisory Committee have agreed that there is **not adequate science** to suggest fugitive dust causes public health concerns.
- ➔ For example, **Dr. Jonathan Borak with Yale University School of Medicine**, a renowned expert in epidemiology and toxicology, conducted an extensive review of current science on coarse PM.
- ➔ Borak's study concluded there was **NOT a scientific basis for the adoption of a 'coarse PM standard'** aka regulation of Dust in the Wind at this time.
Check out the Dr. Borak's findings on Coarse Particulate Matter at:
<http://hill.beef.org/coarseparticulatematter>



For U.S. Ranchers, Dust Control Is Not Some 'Hip New Trend.'

Controlling Dust in the Wind has been a priority land management practice in America for generations. We are experienced in managing air quality on-ranch and have been utilizing Best Management Practices (BMPs) to manage dust in rural America for generations. Farmers, ranchers and cattle producers have a vested interest in managing the dust generated through normal agricultural activity. After all, we are talking about the environment our families and friends live and work in.

~ www.beefusa.org ~ hill.beef.org/coarseparticulatematter ~

Overview of Coarse Particulate Matter Regulation and Agriculture

I. Introduction. On January 17, 2006, the Environmental Protection Agency (“EPA”) issued a proposed rule to revise the National Ambient Air Quality Standards (“NAAQS”) of the Clean Air Act. The NAAQS is a health-based standard. In other words, Congress determined that in order to regulate a pollutant under the NAAQS, health studies must show that the pollutant causes adverse health effects. Conversely, if scientific health studies do not show that a pollutant causes adverse health effects, it is not supposed to be regulated under the NAAQS.

The EPA proposal asks for comments on the merits of regulating coarse particulate matter (i.e. “dust” or “coarse PM”). Examples of agriculture dust that would be regulated under a coarse PM NAAQS is dust produced by tilling soil, cattle romping in feedlots, planting crops, harvesting crops, driving on dirt roads, spreading of nutrients on fields, outdoor storage of bulk materials, feed mixing, among others. NCBA does not believe current scientific health studies provide a basis for regulation of coarse PM in rural or urban areas under the NAAQS.

II. Agriculture and Dust. America’s farmers, ranchers and livestock producers work hard every day to provide much of the nation’s supply of food. They are proud of their tradition as stewards and conservators of America’s land, and good neighbors to their communities. They support dust control measures, which range from soil conservation to fugitive dust control plans, and carry out those measures every day of every year in supplying America with the food it needs. Agriculture producers do not seek to roll back dust controls. Indeed, they seek to maintain and improve them, and make them more effective. Technology-based, reasonable and feasible fugitive dust control measures have been in the past, and must continue to be in the future, the basis for controlling fugitive coarse PM from agriculture operations.

The amounts of fugitive dust remaining after using Best Management Practices from farm, ranch and livestock operations has never been demonstrated to have adverse impacts on health at ambient levels. It is for this reason that, over the last more than 30 years, the EPA has excluded these dusts in making determinations of ambient compliance. The proposed rule’s exclusion of coarse PM from agriculture from the coarse PM NAAQS continues this historic, scientifically-based, policy and practice. This proposed exclusion is threatened, however, by interest groups that believe agriculture dust should be regulated. There is also concern in the agriculture community about whether such an exclusion could be implemented in a way that would truly exclude all agriculture dust.

III. EPA’s and the Clean Air Scientific Advisory Committee’s (“CASAC’s”) Current Controversial Review of the Vacated Coarse PM₁₀ NAAQS. CASAC’s review of the coarse PM standard over the last three years has been marked by controversy, abrupt and unexplained changes of position, last-minute changes in possible theoretical bases for such a standard, and an unprecedented failure by CASAC even to review EPA’s Final Staff Paper and reach “Closure” on its scientific basis for the coarse

PM standard before that document and its recommendations to the EPA Administrator were finalized and released. CASAC reviewed that scientific basis only after that document had become final.

After several years of review and deliberation, several members of CASAC, including its then Chair and its leading health scientists, had expressed the view that EPA's Criteria Document and drafts of its Staff Paper did not provide an adequate basis for a coarse PM standard. Indeed, CASAC's May 11, 2005 draft letter to the Administrator stated that "the setting of this [coarse PM] standard be set aside until further deliberations on the appropriate metric can be made."

At its April 2005 meeting, CASAC had suggested a potential new rationale for a coarse PM Standard that EPA might substitute for its past, unsuccessful efforts to provide a basis for a coarse PM standard. This new concept was based not on the health effects of coarse PM, but its possible contamination by toxic urban contaminants that might be absorbed and carried by coarse PM in urban areas. EPA was urged to substitute this new concept for the years of work that had gone into the Criteria Document and two drafts of its Staff Paper that CASAC had found wanting. After a teleconference on May 18, 2005 regarding its May 11 draft letter, CASAC wrote a final letter to the EPA Administrator stating that although "the evidence for a standard for coarse-mode particles was weaker than for the PM_{2.5}, the Panel agreed that a 24-hour NAAQS for PM_{10-2.5} was appropriate, especially in urban areas, with caveats to make exceptions for those types of rural dusts thought to have low toxicity."

IV. EPA's Final Staff Paper. EPA issued its final Staff Paper on PM NAAQS revision at the end of June 2005. It recommended an "urban" coarse PM standard. Significantly, the Staff Paper noted that the studies and data on which it based its urban proposal were weak, uncertain, limited, and not even adequate to support a health risk assessment, since they did not fulfill the minimum requirements for such assessments. That remains the case. EPA also stated that a coarse PM standard might be based on providing protection somehow "equivalent" to the 1987 24-hour PM₁₀ standard, whose concentration term was based on fine PM, not coarse PM. That approach is plainly unsound legally, practically and scientifically.

V. EPA's Proposed Revisions to the PM NAAQS. On January 17, 2006, EPA published its proposed revisions for the PM NAAQS. The coarse PM standard it proposed is a 24-hour PM_{10-2.5} standard "qualified so as to include any ambient mix of PM_{10-2.5} that is dominated by resuspended dust from high-density traffic on paved roads and PM generated by industrial sources and construction sources." The indicator for this standard "excludes any ambient mix of PM_{10-2.5} that is dominated by rural windblown dust and soils and PM generated by agricultural and mining sources." In addition, it states that "[a]gricultural sources, mining sources, and other similar sources of crustal material shall not be subject to control in meeting this standard." The

concentration term of the proposed coarse PM standard is $70 \mu\text{g}/\text{m}^3$. That level, EPA says, is intended to provide a “generally equivalent level of protection” to the 1987 PM_{10} standard.

VI. EPA’s Proposal of an “Urban-Type” Coarse PM Indicator and PM NAAQS Is not Based on Sound Science and Should not Be Adopted. The new concept for development of a coarse PM standard based on its potential role in urban areas is a novel one, first put forward in April of 2005.

In presenting its proposed 24-hour coarse $\text{PM}_{10-2.5}$ standard, EPA places primary reliance on four studies that it claims provide the support necessary for demonstrating the necessity of controlling coarse PM to a concentration of $70 \mu\text{g}/\text{m}^3$. It states that these studies show significant associations of coarse $\text{PM}_{10-2.5}$ with mortality and morbidity at this concentration. The severe problems that militate against any reliance on these four studies are not discussed in EPA’s discussion of them as its basis for the proposed coarse PM standard. However, in a later discussion of a possible “alternative interpretation” of the health evidence, EPA does acknowledge the fatal flaws in the four studies. The discussion makes it clear that the rationale for the proposed coarse PM standard is not at all supported by the four studies.

In addition, in an egregious failure to guard against the appearance of any unfair and unsound scientific weighing of the evidence on coarse PM, the EPA failed to consider and weigh the far larger number of studies with much larger and more powerful databases and longer duration that specifically considered $\text{PM}_{10-2.5}$, but did not find statistically significant associations. (Schwartz 1996), (Thurston 1994), (Sheppard 2003), (Fairley 2003), (Schwartz 1996), and (Lipfert 2000).

Last year, Dr. Jonathan Borak of Yale University School of Medicine, with expertise in toxicology, epidemiology and occupational health exposure to pollutants, reviewed the science in the Criteria Document and Staff Paper and found a general lack of scientific support for a proposed NAAQS for $\text{PM}_{10-2.5}$.

VII. EPA Acknowledgement of Uncertainties. The proposed rule, in an acknowledgement of the uncertainties associated with the scientific data, solicits comments on “not adopting a thoracic coarse particle standard at this time, and taking into account any new relevant research that becomes available as a basis for considering a more targeted standard for thoracic coarse particles in the next periodic review of the PM NAAQS.” This is the correct ultimate outcome.

VIII. Conclusion. For all of the reasons discussed above, NCBA submits that there is not a sound or adequate basis for the adoption of a coarse PM standard in rural or urban areas at this time. It supports the alternative of not adopting a coarse PM standard for ambient exposure. NCBA’s members will continue their efforts to control dust and will continue to support the improvement of those practices.