



## **Coarse Particulate Matter a/k/a 'Dust in the Wind'**

### *Key Facts Regarding Coarse PM*

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#### **Rural or Urban, It's 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.

#### **Scientific Evidence Does Not Suggest Customary 'Dust in the Wind' Levels Correlate With Actual Human Health Problems.**

- 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.
- 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. Farmers And 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 on farms and ranches 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.

- Producers by nature are good conservationists and good neighbors. That means tending to a number of environmental factors on a daily basis...including dust.
- Producers employ environmentally-friendly practices including, windbreaks, watering down dirt roads and using sprinklers to reduce dirt in cattle pens. Many of these activities are mandated and/or monitored by clean air permits/committees.
- Everyday, we continue to work and improve BMPs and technology-based fugitive dust control measures as the basis for controlling dust from farm, ranch, and cattle-feeding operations.

### **Requirements to Regulate Dust In the Air are Undisputedly Unattainable and the Proposed Non-Science Based Levels Would Put American Farmers and Ranchers Out of Business.**

- Agriculture is extremely valuable to the American economy. We provide the food for America's tables and such unscientific standards would literally force us to give up and sell the family farm.
- From Redwood forests to the Gulf Stream waters, the United States can get pretty dusty, especially in rural areas. The fate of U.S. agriculture is at stake.
- Do we really want to put hard-working environmentally-friendly families out of business so they can sell off their rural lands to developers?
- Do we really believe that paving all dirt roads is better for open spaces than leaving natural dirt? How is that serving the earth?

### **There Exists No Valid NAAQS Standard for Dust in the Wind.**

- Right now, EPA's proposed air quality standard for Dust in the Wind (Coarse Particulate Matter) is based on FINE Particulate Matter measurements from British Smoke from the 1950s.
- It is not based on Coarse PM data and cannot scientifically be used as a metric for determining the concentration at which Dust in the Wind may be harmful.
- None of the air quality standards adopted prior to 1997 recognized the fundamental distinction between fine and coarse Particulate Matter. In 1997, the EPA created a fine PM<sub>2.5</sub> standard in recognition of the difference. While EPA initially proposed not to adopt a 24-hour coarse PM standard, in the final rule it did adopt such a standard. That coarse PM<sub>10</sub> standard was set at 150 µg/m<sup>3</sup>, a concentration level derived from fine PM and not coarse data. The only concentration data discussed as the basis for this standard was at concentration levels well above 1000 µg/m<sup>3</sup> and included both fine and coarse PM.
- The 1997 coarse PM<sub>10</sub> standard was vacated by the D.C. Circuit Court of Appeals and set aside as confounded, because it included both fine and coarse PM. The result is that there has never been a valid coarse PM standard based on coarse PM evidence.

## **Unprecedented Problems within EPA and its Advisory Committee Regarding this Issue Must Be Brought to Attention.**

- The Clean Air Scientific Advisory Committee's review of the coarse PM standard over the last three years has been marked by controversy and abrupt, unexplained changes of position.
- The Committee made last-minute changes in possible theoretical bases for such a standard.
- In April 2005, CASAC 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 possible contact with urban contaminants that might be absorbed and carried by coarse PM in urban areas.
- 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 "the setting of this [coarse PM] standard be set aside until further deliberations on the appropriate metric can be made."
- In an unprecedented failure, the Committee failed to even review the 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. Attached to the final CASAC "consensus letter" to the administrator were "individual views" of individual members many of which expressed great concern about EPA's proposal.

## **Science does Not Support EPA's Recommended Urban Dust in the Wind Standard.**

- In their own final Staff Paper in June 2005, the EPA noted the studies and data on which it based its 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. An "urban" coarse PM standard is not founded in science.
- 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.

## **The Studies Cited to Support Regulating Urban Dust in the Wind are Fatally Flawed.**

- The EPA acknowledges fatal flaws in the four studies suggested as its basis for the proposed coarse PM standard.
- Unfortunately, the severe problems that negate any reliance on these four studies are not discussed in EPA's initial review but only mentioned in a later discussion of a possible "alternative interpretation" of the health evidence.
- This 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 PM<sub>10-2.5</sub>, but did not find statistically significant associations.
- 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 lack of scientific support for the proposals.
- The EPA clearly acknowledges the uncertainties associated with the scientific data, by stating they are soliciting 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.

## **Beyond the Jargon: What is Coarse Particulate Matter? The Basics of this Complex Air Issue for Everyone**

### **The Air Around Us, Whether You Live In An Urban Or Rural Area, Contains Harmless Airborne Particles. Scientists Call This ‘Coarse Particulate Matter’.**

- Consider children playing in the neighborhood sandbox or dashing around the baseball diamond – it’s not uncommon for these actions or an occasional wind to stir up dust and dirt particles into the air. It’s dusty for a short while, but you wouldn’t whip out the dust-o-meter, close down the park or call the ballgame off!
- Regular agriculture activity, like plowing, cattle moving around or vehicles driving on a dirt or gravel road, can generate coarse particles in the air in the same way. And just like the sandbox or baseball field, the particles are only airborne for a little while and they are harmless.

### **Scientists and Government Agencies Have Investigated the Amount and Type of Particles in the Air and Have Not Found That They Cause Substantial Adverse Health Effects.**

- In rural areas, farmers, ranchers and cattle producers have applied best management practices that help manage the dust. For more than thirty years, scientists and public health experts have agreed that any remaining fugitive dust does not pose a health concern.
- Although EPA is proposing to regulate coarse particles in urban areas, the final EPA Staff Paper and the Clean Air Scientific Advisory Committee contradicts this notion and admits that the studies the regulation is based upon are weak and limited. Regulation based on weak and limited studies is not what Congress had in mind.

### **The Existing Evidence Does Not Support Regulating the Air for Coarse Particulate Matter In Rural or Urban Areas.**

- EPA itself has acknowledged it’s hard to set a standard for coarse PM because the epidemiological data is limited and inconsistent.

- A Yale University School of Medicine scientist reviewed the studies being considered by EPA and determined that they don't warrant a regulation of coarse particulate matter period in urban or rural areas.

### **The Remaining Rural Areas in This Country Provide a Key to Our Heritage. Why Do Some Environmentalists Prefer to Pave Paradise and Put Up a Parking Lot?**

- Environmental activists are jeopardizing these icons of our past – the very open country they pretend to protect – by vilifying the air particles they produce.
- Believe it or not, some of the more radical activists see asphalt as the solution to reducing particles in the air. Imagine looking out on the horizon or rolling hills of the countryside only to see more and more pavement.
- Does this mean we want to pave all dirt roads or dusty areas in our national parks? That is the extreme nature of this issue.

### **Farming and Ranching Families Live Off the Land, and They Have a Vested Interest In Managing the Dust Generated Through Normal Agricultural Activity.**

- Producers are by nature good conservationists and good neighbors. That means attending to a number of environmental factors on a daily basis... including dust.
- Producers employ best management practices including, windbreaks, watering down dirt roads and using sprinklers to reduce dirt in cattle pens. Many of these activities are mandated and/or monitoring by clean air permits/committees.