

**TECHNICAL COMMENTS  
PRESENTED TO THE  
CLEAN AIR SCIENTIFIC ADVISORY  
COMMITTEE,  
July 26, 2010**

Coarse Particulate Matter Coalition  
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# **Coarse Coalition**

**The Coarse Particulate Matter Coalition includes the following organizations that collectively represent more than 100,000 employees.**

**National Stone, Sand and Gravel Association**

**National Cotton Council**

**Kennecott Utah Copper LLC**

**National Oilseed Processors Association**

**Corn Refiners Association**

# Coalition Comments

The Coalition appreciates the opportunity to briefly discuss the seven points discussed in detail in our written comments.

- **Spatial nonuniformity of coarse mode particulate matter in intraurban areas introduces substantial uncertainty into the results of epidemiological studies.**
- **Supporting evidence is lacking to independently confirm the results of epidemiological studies.**
- **The Policy Assessment Document incorrectly implies that globally transported dust from Asian and African deserts are primarily in the coarse mode.**

# Coalition Comments

- **The lack of coarse PM compositional data introduces substantial uncertainty into the epidemiological study results.**
- **The proposed change in the format and level of the 24-hour coarse-mode NAAQS to a three-year average 98th percentile format is premature at the very least.**
- **Arbitrary standard setting based on insufficient data will aggravate already severe unemployment, which is itself a major health problem.**

# Coalition Comments

- **Effective control strategies to achieve very low 24-hour coarse PM NAAQS are not clear considering that the dominant sources in many parts of the West and Midwest include:**

**Wind-blown dust from unvegetated land**

**Controlled burns and wild fires**

**Unpaved roads**

**Agricultural operations**

**Asian and African dust storms**

**Sea salt**

**Pollen**

# Coarse Mode PM Spatial Nonuniformity

- **The Coalition has calculated coarse PM data using publically available day-by-day PM10 and PM2.5 data from colocated monitors to evaluate the extent of coarse mode spatial nonuniformity. The Coalition calculated coarse PM by difference.**
- **The Coalition has calculated coefficients of divergence for monitoring sites in three urban areas.**

# **AQS Datasets Evaluated**

**Pittsburgh, 2009 – Four Monitoring Sites**

**Los Angeles, 2007 – Six Monitoring Sites**

**Phoenix, 2007 – Three Monitoring Sites**

# Coefficients of Divergence Coarse Mode PM, Pittsburgh

Table 1. Coefficient of Divergence Values,  
Pittsburgh, PA Coarse Particulate Matter  
(Four monitoring sites in Allegheny County)

Monitoring Site	64	67	1301	3007
64	0	0.41	0.41	0.35
67		0	0.48	0.30
1301			0	0.47
3007				0

# Coefficients of Divergence

- There is a clear difference in the spatial uniformity of coarse-mode (COD=0.40) and fine mode (COD=0.15) particulate matter in Pittsburgh.
- The results of analyses of Los Angeles and Phoenix data were relatively similar.
- Spatial nonuniformity in many urban area datasets could introduce considerable uncertainty into the coarse PM levels to which observed health effects have been attributed in epidemiological studies.

**Thank you**