

April 15, 2006

The Honorable Stephen Johnson
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20460

Re: National Ambient Air Quality Standards for Particulate Matter
71 Fed. Reg. 2620; Docket ID No. EPA-HQ-OAR-2001-0017; and Proposed
Monitoring Requirements for Coarse Particles 71 Fed. Reg. 2710; Docket ID No.
EPA-HQ-OAR-2004-0018

Dear Administrator Johnson:

We are writing to express our grave concern that the proposed revisions to the National Ambient Air Quality Standards for fine and coarse particulate matter (PM) are insufficient to protect public health and welfare as required by the Clean Air Act.

Under the Clean Air Act, primary standards must protect public health, including the health of sensitive populations, with an adequate margin of safety. Secondary standards must protect public welfare, including important adverse effects such as visibility impairment and damage to materials and crops. The proposed standards fail on both counts.

The adverse health effects of particulate matter are serious and have been well documented in EPA's Criteria Document and Staff Paper. The thousands of studies published over the last nine years make a much stronger case for the regulation of fine particles than in 1997, and indicate that the current standards must be lowered to protect public health.

Community health studies have consistently demonstrated associations between daily increases in fine particles and decreased lung function, exacerbation of asthma, more frequent emergency department visits, increased risk of heart attacks and strokes, additional hospital admissions, and increased number of daily deaths.

These effects have been demonstrated in cities where the daily concentrations of PM_{2.5} are well below the current standard and rarely reach the level of the proposed 24-hour standard. Furthermore, the form of the proposed standard excludes too many of the most polluted days from compliance determinations.

Long term exposures to fine particles are implicated in premature death from heart disease, lung disease, and lung cancer. Lives may be shortened by one to three years. EPA's risk assessment demonstrates that thousands of premature deaths attributable to

particulate air pollution are occurring each year under the current standard, and that the proposed standards would do little to reduce this toll.

Building on earlier work, the largest ever epidemiological study of the effects of PM_{2.5} in 204 U.S. counties was published in the *Journal of the American Medical Association* in March 2006.¹ This study showed clearly that the proposed standards for PM_{2.5} fail to protect public health as required by the Clean Air Act. In this study, the average of the county mean annual values was 13.4 µg/m³—well below the proposed standard of 15 µg/m³. At levels below what EPA proposes as an annual standard, the findings showed cardiovascular and respiratory hospital admissions for the elderly increasing as concentrations PM_{2.5} increased. Significant associations with excess cardiac and respiratory admissions persisted even after excluding all days above 35 µg/m³ (the level of the proposed daily standard) from the study.² Even where PM_{2.5} concentrations met *both* the proposed annual and 24-hour standards, serious health effects occurred.

Furthermore, a follow-up to the Harvard Six Cities Study published in March 2006 documented the life-saving benefits from reduced particulate levels. That study found that an average of three percent fewer people died for every reduction of one µg/m³ in the annual average levels of PM_{2.5}.³

According to EPA's Children's Health Protection Advisory Committee, the proposed annual PM_{2.5} standard does not provide the required adequate margin of safety to protect infants and children. The Committee concluded that the proposed daily PM_{2.5} standard must also be revised downward to protect public health.⁴

The Clean Air Scientific Advisory Committee to the EPA has indicated that PM_{2.5} causes adverse health effects including premature death at annual concentrations below the current standard, and has reiterated its recommendations for lowering the annual standard.⁵

Coarse particles are associated with increased hospitalization for respiratory infections in children, decreased lung function, increased hospital admissions for heart disease, increased hospital admissions for respiratory disease in the elderly and increased risk of

¹ Dominici F, Peng RD, Bell ML, Pham L, McDermott A, Zeger SL, Samet JM. Fine Particulate Air Pollution and Hospital Admission for Cardiovascular and Respiratory Diseases. *JAMA* 2006; 10:1127-1134.

² Letter from Francesca Dominici to U.S. EPA, March 23, 2006. Docket ID No. EPA-HQ-OAR-2001-0017-0988.

³ Laden F, Schwartz J, Speizer FE, Dockery DW. Reduction in Fine Particulate Air Pollution and Mortality: Extended Follow-up of the Harvard Six Cities Study. *Am J Respir Crit Care Med* 2006; 173: 667-672.

⁴ Letter from Melanie A. Marty, Ph.D., Chair, EPA Children's Health Protection Advisory Committee, to Stephen L. Johnson, Administrator, U.S. Environmental Protection Agency, RE: Proposed NAAQS for Particulate Matter, March 3, 2006.

⁵ Dr. Rogene Henderson, Chair, Clean Air Scientific Advisory Committee letter to Stephen L. Johnson, Administrator, U.S. Environmental Protection Agency, March 21, 2006, Subject: Clean Air Scientific Advisory Committee Recommendations Concerning the Proposed National Ambient Air Quality Standards for Particulate Matter, EPA-CASAC-LTR-06-002.

premature death. EPA proposes a daily coarse particle standard that would be higher than levels where serious health effects have been reported in the studies EPA reviewed. EPA would enforce the standard only in urban areas with populations above 100,000, and exempt mining and agricultural sources of particles. EPA must set a coarse particle standard that applies nationally and without exemptions, to protect the health of all Americans as the Clean Air Act requires. Furthermore, EPA must not revoke the PM₁₀ standard in any area of the country without providing protection against backsliding.

The Children's Health Protection Advisory Committee has recommended that the level of the coarse particle standard be lowered, that standards apply nationwide, with monitoring in both urban and rural areas, and that the exemption for agriculture and mining be withdrawn. The Clean Air Scientific Advisory Committee has also opposed exempting specific industries and recommended establishment of a national coarse particle monitoring program in urban and rural areas.

Our organizations strongly support lowering both the annual average and the 24-hour fine particle standard, while tightening the way compliance with the standards is measured. We urge you to adopt protective coarse particle standards that will apply nationwide, with monitoring in both urban and rural areas. We oppose the special exemptions for agribusiness and mining.

In addition, we believe that EPA must establish secondary standards for fine particles that protect against deterioration of visibility caused by fine particle pollution, as recommended by the Clean Air Scientific Advisory Committee, and set secondary standards for coarse particles that apply nationwide to protect against the ecosystem damage and visibility degradation they cause.

Specifically, we favor:

- an annual average PM_{2.5} standard of 12 µg/m³ or below, with elimination of the spatial averaging loophole;
- a 24-hour PM_{2.5} standard of 25 µg/m³, 99th percentile;
- a 24-hour PM_{10-2.5} standard of 25-30 µg/m³, 99th percentile, to apply nationally.
- Application of the coarse particle standard across the country, with monitoring in rural areas and elimination of the special exemption for the mining and agriculture industries;
- a PM_{2.5} secondary standard of 20 µg/m³ or below, based upon a rolling 4-hour average; and
- a secondary standard for coarse PM that protects ecosystems and scenic vistas across the country.

The decision over the air quality standards for fine and coarse particulate matter is the most far-reaching environmental health decision you will make this year. We urge you to strengthen the proposed standards, consistent with the law and the science.

Sincerely,

National Organizations

Center for Science in the Public Interest
 Clean Air Task Force
 Clean Air Watch
 Clear the Air
 Environmental Integrity Project
 Friends of the Earth
 Greenpeace USA
 Izaak Walton League of America
 League of Conservation Voters
 League of Women Voters of the United States
 National Audubon Society
 National Environmental Trust
 Public Citizen
 Science and Environmental Health Network
 Sierra Club
 Union of Concerned Scientists
 Unitarian Universalist Ministry for Earth
 U.S. PIRG
 Women's International League for Peace and Freedom

Regional, State, and Local Organizations

Alabama

Alabama Environmental Council

Alaska

Alaska Community Action on Toxics

Arizona

Arizona Public Interest Research Group
 Grand Canyon Trust

California

Bay Area Clean Air Task Force
 Bluewater Network
 Center on Race, Poverty & the Environment
 Coalition for Clean Air
 Environment California
 Fresno Metro Ministry
 Global Community Monitor
 Latino Issues Forum
 Literacy for Environmental Justice
 Long Beach Alliance for Children with Asthma

Our Children's Earth Foundation
Pacific Institute
Planning and Conservation League
Regional Asthma Management and Prevention (RAMP) Initiative, Oakland
Relational Culture Institute, Fresno
Steven and Michele Kirsch Foundation
The Regeneration Project/Interfaith Power & Light Campaign
Transportation Solutions Defense and Education Fund (TRANSDEF)
West Oakland Environmental Indicators Project

Colorado

Environment Colorado
Rocky Mountain Clean Air Action

Connecticut

Connecticut Coalition for Environmental Justice
Connecticut Public Interest Research Group

Florida

Big Bend Climate Action Team
Florida League of Conservation Voters
Florida Public Interest Research Group
Legal Environmental Assistance Foundation

Georgia

Georgia Conservancy
Georgia Public Interest Research Group
Mothers and Others for Clean Air, Atlanta

Illinois

American Bottom Conservancy
Citizens Against Ruining the Environment - C.A.R.E.
Illinois Public Interest Research Group
Lake County Audubon Society
Lake County Conservation Alliance
Mobile C.A.R.E. Foundation, Chicago
Stand Up/Save Lives Campaign

Indiana

Airaware
Indiana Public Interest Research Group
Valley Watch, Inc.

Iowa

Iowa Environmental Council
Iowa Public Interest Research Group

Kentucky

Kentucky Resources Council, Inc.

Louisiana

Alliance for Affordable Energy

Maine

Environment Maine

Friends of Acadia

Maine Breast Cancer Coalition

Maine Cardiovascular Health Council

Maine Public Health Association

Natural Resources Council of Maine

The Chewonki Foundation

Maryland

Chesapeake Bay Foundation

Maryland Public Interest Research Group

Massachusetts

Environmental League of Massachusetts

HealthLink

Massachusetts Public Interest Research Group

New England Clean Water Action

Sciencecorps

Michigan

HEAT - Hamtramck Environmental Action Team

Lone Tree Council

Michigan Coalition on the Environment and Jewish Life

Michigan Environmental Council

Michigan Interfaith Power & Light

Michigan League of Conservation Voters

Public Interest Research Group in Michigan

Mississippi

Environmental Coalition of Mississippi

Mississippi 2020 Network Inc.

Missouri

Health & Environmental Justice

Missouri Public Interest Research Group

Minnesota

Minnesota Center for Environmental Advocacy
Minnesotans for an Energy-Efficient Economy (ME3)

Montana

Montana Environmental Information Center
Montana Public Interest Research Group

New Hampshire

Aurum Foundation
C.L.E.A.R. Citizens Leading for Environmental Action and Responsibility
Citizens for a Sludge Free Land
Environmental Stewardship Committee of the ABC of Vermont and New Hampshire
New Hampshire Citizens for Sustainable Population
New Hampshire Global Warming Campaign
New Hampshire Pediatric Society
New Hampshire Public Interest Research Group

New Jersey

U.S. Environmental Watch, Elizabeth
New Jersey Public Interest Research Group

New Mexico

New Mexico Public Interest Research Group

New York

Atlantic States Legal Foundation, Inc.
Hudson River Sloop Clearwater, Inc.
Kids Against Pollution
New York Public Interest Research Group
Sustainable Energy Alliance of Long Island
West Harlem Environmental Action, Inc. (WE ACT)

North Carolina

Appalachian Voices
Blue Ridge Environmental Defense League
Clean Air Community Trust
Carolinas Clean Air Coalition
Environment North Carolina
North Carolina Conservation Network
Southern Alliance for Clean Energy
Southern Appalachian Biodiversity Project
Southern Environmental Law Center

Ohio

Environmental Health Watch
Green Environmental Coalition

Ohio Environmental Council
Ohio League of Conservation Voters
Ohio Public Interest Research Group
Western Lake Erie Waterkeeper

Oregon

Better Breathers Club, Medford
Northwest Environmental Advocates
Oregon Public Interest Research Group
Oregon State Public Interest Research Group
Rogue Valley Citizens for Clean Air

Pennsylvania

Army for a Clean Environment, Inc.
Center for the Celebration of Creation
Citizen Power
Citizens for Pennsylvania's Future
Clean Air Council, Philadelphia
Ecology Mission Group of Central Baptist Church
Group Against Smog and Pollution, Pittsburgh
PennEnvironment
Women's Health and Environmental Network

Rhode Island

Rhode Island Public Interest Research Group

South Dakota

Defenders of the Black Hills

Texas

Galveston-Houston Association for Smog Prevention (GHASP)
Environment Texas
Mothers for Clean Air, Houston

Utah

Great Salt Lake Keeper
Sevier Citizens for Clean Air and Water
Utah County Clean Air Coalition
Utah Population and Environment Coalition
Wasatch Clean Air Coalition

Vermont

Vermont Public Interest Research Group

Virginia

Greater Roanoke Valley Asthma and Air Quality Coalition

Piedmont Environmental Council

Washington

Washington Environmental Council

Washington Public Interest Research Group

Wisconsin

Clean Air Madison

Clean Wisconsin

Wisconsin Public Interest Research Group

Wyoming

Biodiversity Conservation Alliance

Western Watersheds Project

Wyoming Outdoor Council