



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

MAR 12 2002

THE ADMINISTRATOR

The Honorable John Graham, Ph.D.  
Administrator, Office of Information  
and Regulatory Affairs  
Office of Management and Budget  
Washington, D.C. 20503

Dear Dr. Graham:

Thank you for writing to me about the importance of continued research on the public health risk posed by airborne particulate matter (PM).

As you know, the EPA is devoting a substantial portion of its research budget to better understand the effects of PM on public health. Research related to the key questions outlined in your letter regarding PM exposure and health effects is already underway and I am committed to its continuance. Our research strategy has been based on the results of a collaborative effort between EPA and the National Academy of Sciences (NAS) Committee on Research Priorities for Airborne Particulate Matter to identify and address critical research needs.

A significant amount of our resources are targeted at improving our basic understanding of the potential adverse effects of specific components of PM, alone or in mixtures that include gaseous co-pollutants. These efforts are well-coordinated, encompass a variety of disciplines, and are conducted by both Office of Research and Development staff and academic investigators selected through a competitive process. EPA has also partnered with other federal and state agencies, public/private organizations, and research groups in other countries. Our research plan has produced meaningful results to date, in part because we periodically reassess it to ensure its appropriateness in light of new scientific findings.

The latest version of the PM research plan, which was presented to the NAS panel last month, takes several investigative approaches that will increase our understanding of the relative importance of PM components and sources. These include:

- *Controlled exposure studies of individual PM components.* EPA-sponsored studies during the past five years have used this approach to identify PM components that can cause pulmonary and cardiovascular injury.

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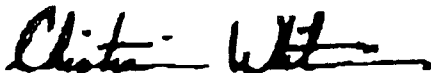
- *Laboratory exposure of humans and animals to "real world" ambient air particles.* This approach integrates health effects data, exposure data, and source apportionment information, and has the potential to link PM-induced health effects not only to specific PM components, but also to the sources that generate those components.
- *Epidemiologic studies in which mortality and morbidity are associated with specific PM components and sources.* Over the past several years, EPA has partnered with the states and has invested significant resources to develop an extensive monitoring network capable of measuring a large number of individual components. The network consists of research-grade "supersites," trend sites, and daily speciation sites. The EPA now operates 53 speciated PM sites, a subset of which provide daily or continuous speciated data. Once these sites have operated long enough to accumulate sufficient monitoring data, the EPA intends to initiate a series of epidemiologic studies to examine the links between adverse health effects, specific PM components, and PM sources. The EPRI Atlanta air quality study referred to in your letter is an excellent example of the utility of air quality networks, as is the earlier EPA/Harvard study linking mortality to source categories.

I believe that, consistent with the research needs outlined in your letter, EPA's research program has been and continues to be appropriately focused on the critical public health issues associated with exposure to PM. The results of this program will greatly enhance the information available for use in EPA's timely review and implementation of the existing fine particle standards. While we are making considerable progress, though, much work remains to be done. Our commitment must extend for a number of years if the PM research effort is to succeed. I hope that I can count on your and OMB's continued interest in and support of this important program.

In light of your office's interest in these issues and the recent presentation by the Health Effects Institute (HEI) to the EPA on PM-related matters, I have asked Assistant Administrator Jeff Holmstead of EPA's Office of Air and Radiation and Acting Assistant Administrator Henry L. Longest II of EPA's Office of Research and Development to schedule a meeting with EPA, OMB and HEI representatives to consider the future direction of these studies. The EPA is also interested in identifying specific types of health research that would be useful in enhancing our ability to quantify the health benefits from future reductions in human exposure to particulate matter.

Should you have any questions, please contact me or Acting Assistant Administrator for Research and Development Henry L. Longest II at (202) 564-6620. With you, I look forward to continued progress in this important area of research. Best wishes.

Sincerely yours,



Christine Todd Whitman