



The American Energy Initiative: A Focus on the New Proposal to Tighten National Standards for Fine Particulate Matter

**Testimony of
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American Road and Transportation Builders
Association**

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Subcommittee on Energy and Power**

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My name is Marc Herbst. I currently serve as the Executive Director of the Long Island Contractors Association. On behalf of the American Road and Transportation Builders Association (ARTBA) and its 5,000 member firms and public agencies nationwide, the association would like to thank Chairman Upton, Ranking Member Waxman, Subcommittee Chairman Whitfield and Subcommittee Ranking member Rush for reviewing the United States Environmental Protection Agency's (EPA's) recently proposed revision to the National Ambient Air Quality Standards (NAAQS) for particulate matter (PM).

ARTBA's membership own, plan, design, supply and construct transportation projects throughout the country which are directly impacted by the federal Clean Air Act (CAA) and EPA's NAAQS process. Federal highway funding for projects built by ARTBA members is contingent upon conformity with the CAA and its standards. The industry we represent generates more than \$200 billion annually in U.S. economic activity and sustains more than 2.5 million American jobs. This statement represents the collective view of our member companies and organizations.

Transportation infrastructure development and environmental protection have long been intertwined in modern society. The quality of life, level of personal freedom and choice, and

economic growth and stability any nation offers its citizens are closely related to the scope, quality and efficiency of its transportation infrastructure network. And clean air is obviously essential to human health and well-being.

Of course, building the physical infrastructure that facilitates our personal mobility—access to jobs, shopping, recreation, worship, family and friends—and shipments of materials and finished goods, inherently involves disrupting the natural environment where it is sited. And the personal and business use our transportation infrastructure makes possible also usually involves the use of powered machines that also impact our natural environment. These are truisms whether we are talking about streets, roads, highways, bridges, public transit systems, intercity and freight rail, airports, waterways or ports.

The EPA's proposed recommendation, announced June 14, would tighten the federal PM standard. Any tightening of the PM standard would increase the number of counties that do not comply with CAA standards. As a result, federal highway funds can be withheld from these communities. This reality creates a counterproductive cycle where new NAAQS standards delay needed improvements to the nation's infrastructure network which has already reached "critical mass" in terms of being able to serve the needs of our citizens and economy. In many cases, the projects put on hold or cancelled would have alleviated traffic congestion that is a major cause of mobile source emissions.

The stated goal of the PM NAAQS is in part to improve public health. This is a commendable objective and one shared by ARTBA. EPA, however, must be cognizant of the impact more stringent PM standards would have on other federal initiatives. Nearly 32,000 people die on U.S. highways each year and many federally-funded highway improvements are designed specifically to address safety issues. As such, imposing new PM standards that threaten future highway improvements could be counterproductive to improving public health. As such, EPA's recommendation to tighten PM standards ignores one public health threat and favors another.

When considering PM standards, and any possible changes, it is important to note the EPA's own reports have consistently indicated an overall decline in PM emissions over the past 10 years. Any tightening of the PM NAAQS by the EPA would greatly increase the stringency of PM regulation at a time when existing standards are already resulting in noticeable progress. According to the EPA's own data, concentrations of fine particulate matter have declined by 24 percent (national standards) and 28 percent (24-hour standard) between 2001 and 2010¹. This decline in emissions becomes more remarkable when compared to additional EPA data explaining that since 1980, gross domestic product increased by 127 percent, vehicle miles travelled increased by 96 percent, population increased by 36 percent and energy consumption increased by 19 percent. Indeed, since 1980, the overall amount of aggregate emissions, including PM, has decreased by 67 percent². This progress has occurred both prior to and since the implementation of the existing PM NAAQS. Furthermore, this continuing improvement indicates the current regulations are having their desired effect.

¹ United States Environmental Protection Agency, Our Nation's Air, Status and Trends through 2010, p. 12, available at: <http://www.epa.gov/airtrends/2011/index.html>.

² U.S. EPA, Comparison of Growth Areas and Emissions, 1980-2010, available at: <http://www.epa.gov/airtrends/aqtrends.html#comparison>. The six principal or "criteria" air pollutants referred to by the EPA are nitrogen dioxide, ozone, sulfur dioxide, particulate matter, carbon monoxide and lead.

Specifically, the Federal Highway Administration (FHWA) has documented a 50 percent reduction in PM emissions from on-road vehicle travel since 1990.³ Today's average motor vehicle produces 80 to 90 percent less emissions than it did in 1967.⁴ Clearly, the transportation community is playing a vital role in reducing PM levels and is continuing to take steps, independent of the NAAQS, to build on this success by further reducing all forms of air pollution. As better motor vehicle and fuel technologies develop, vehicle emissions will continue to decrease, even as automobile usage increases.

Illustrating this point, major automobile manufacturers announced in 2005 a new generation of vehicles that will be 99 percent cleaner than vehicles produced 30 years ago. This reduction in emissions comes from a four-part strategy that includes cleaning up the fuel as it goes into the vehicle, burning the fuel more precisely in the engine, removing undesirable emissions with a catalyst, and monitoring all of these systems to ensure minimal emission levels. As these and other new technologies are integrated into both on and off road vehicles, emissions levels in all areas (including PM) should continue to decline.

Counties need some sense of predictability in order to develop long-range transportation plans to most effectively achieve PM reduction. Adding a new layer of requirements on top of existing standards that have not been fully implemented complicates these efforts. Specifically, existing projects deemed to be in compliance with the Clean Air Act when first undertaken could be thrown out of compliance once new standards are approved, exposing them to costly, time-consuming litigation.

To fully understand the effects of increasing the PM NAAQS on the transportation sector and the problems counties face when the standards are tightened, the transportation conformity process as a whole also needs to be examined. The problem with the existing conformity process is caused by the fact that some have tried to turn conformity into an exact science, when it is not. Rather, conformity findings are based on assumptions and "modeling of future events," not often reflecting reality. Very few conformity lapses occur because a region has a major clean air problem. They occur because one of the parties involved cannot meet a particular deadline. Thus, the conformity process has become a top-heavy bureaucratic exercise that puts more emphasis on "crossing the t's and dotting the i's" than on engaging the public in true transportation planning that is good for the environment and the mobility of a region's population.

The problems with the conformity process are amplified by transportation plans and the State Implementation Plans (SIPs) with which they are intended to conform often being out of sync with one another. Largely, this is due to transportation plans having very long planning horizons requiring frequent updates, while most air quality plans have very short planning horizons and are updated infrequently. As a result, many of the planning assumptions used for conformity determinations of transportation plans and programs are not consistent with the assumptions used in the air quality planning process to establish emissions budgets and determine appropriate control measures.

³ United States Department of Transportation, "Transportation Air Quality Selected Facts and Figures" p.28 (2006).

⁴ United States Department of Transportation, "Transportation Air Quality Selected Facts and Figures." (1999).

In other words, because transportation plans must use the most recent air quality data, a perceived increase in emissions and possible conformity lapses can occur simply because the numbers of models relied on in the transportation plan differ from those in the air quality plan—not because an area’s air quality has changed. The more EPA changes the NAAQS, the greater the conformity problems become. Changes in the NAAQS, on a completely different timeline than conformity schedules, can set off a chain reaction forcing counties to re-examine deadlines which had been set years prior and result in significant additional regulatory requirements. These types of complications need to be weighed against the potential gains of increasing air quality standards.

ARTBA is also concerned by EPA’s proposal to place PM monitors in “near roadway” locations. The monitors, which determine PM compliance for counties, must be placed in areas where they can get a reading indicative of PM levels for the area as a whole. Emissions are naturally going to be higher in some areas of a county and lower in others. For example, a monitor placed by the side of a well-travelled highway is most likely going to get a higher reading for PM emissions than one placed by a little used residential street. Also, when taking readings from PM monitors, it should be realized that the monitors cannot account for the aforementioned PM reductions due to take place in the near future, such as reductions from newer, cleaner trucks and busses being placed on-line. Thus, even if there is a violation, the steps to remedy it are already underway.

A major key to further emissions reductions is to deal directly with traffic congestion. Additional emissions reductions from the transportation sector will be achieved by relieving congestion through greater production of transportation improvements across all modal sectors. Currently, according to a study published last year by the Harvard Center for Risk Analysis fine particulate matter emissions that can be traced back to traffic congestion in the nation’s 83 largest urban areas lead to more than 2,200 premature deaths in the U.S. in 2010. The related public health cost, researchers say, was, conservatively, at least \$18 billion⁵.

Vehicles operating at highway speeds unimpeded by congestion are far more efficient—and therefore generally emit far less—than vehicles caught in stop-and-go traffic. This is particularly true for PM emissions, which are greater at lower speeds and when a vehicle is stopping and starting as opposed to travelling in an uncongested lane⁶. Thus, the worse traffic congestion becomes, the worse the PM emissions from on-road vehicles will be.

The simple fact is that if America is to meet its mobility and environmental challenges during this century, we must invest in a host of transportation solutions, including new capacity for both highways and mass transit systems. And not create a false choice between needed investment in both areas.

Unfortunately, traffic congestion has grown drastically during the past quarter-century, as vehicle travel has greatly outpaced new highway capacity, which has only increased six percent

⁵ The Public Health Costs of Traffic Congestion (June 2011). Available at: <http://www.transportationconstructioncoalition.org/Docs/TCC-Harvard-Traffic-Congestion-Report-Final.pdf>.

⁶ Project-Level Mitigation What Affects Diesel Particulate Matter Emissions, UC Davis/CalTrans, p. 8, 12 (November 20, 2008), available at: <http://dn.engr.ucdavis.edu/images/AQMit-Report1.pdf>.

in the last 30 years. Failure to alleviate congested areas already produces specific bottlenecks that cause 50 percent of total congestion on the nation's freeways. In 2004, a study of the nation's most severely congested highways highlighted the reality that significant reductions in emissions require a reduction in vehicle time traveled, not vehicle miles traveled. The study concluded that modest improvements to traffic flow at 233 bottlenecks would reduce carbon dioxide emissions by as much as 77 percent and conserve more than 40 billion gallons of fuel over a 20-year period.⁷ These fuel savings translate directly into lower emissions.

While the proponents of a modal conflict will argue the solution to this national dilemma is to get people out of their cars, there is no evidence that this approach is either achievable or even desired by the American public. The preferred alternative should be to advance all modes of transportation. In a nation as large as ours, different areas will require different transportation strategies.

Certainly new roadway capacity is not a viable solution in some communities, but for others it is appropriate. Given the nation's vast transportation challenges, federal policy should not constrain potential solutions available to communities. To do so would have serious economic consequences. For example, the truck traffic statistics cited earlier do not represent discretionary decisions—the fact of the matter is that for certain products, locations and time schedules, frequent shipments by truck are the only feasible alternative.

It should be noted that Committee's examination of EPA's proposed PM standards is particularly well-timed as it coincides with efforts to complete the long-overdue reauthorization of the federal surface transportation program. As the House and Senate conferees presently are meeting around the clock, members of both parties claim the measure they are working to produce is a "jobs bill." Allowing this much needed legislation to be followed by implementation of EPA's recommended PM standards is at best two steps forward and one step back. Providing resources and important policy reforms to help states advance critical transportation improvements while greatly reducing areas where transportation projects can move forward actually undermines the goal behind the surface transportation bill.

It is ironic that members of both chambers and parties have made streamlining the environmental review and approval process for transportation projects a priority of the transportation bill yet few talk about how EPA's PM proposal will severely disrupt the very process they are trying to make more effective. Essentially, while any streamlining reforms in the reauthorization bill could save years during the project delivery process, the EPA's proposed PM standards will severely restrict the opportunities states have to take advantage of these reforms.

In conclusion, ARTBA asks the Committee to recognize the shared goals of transportation and environmental policy and their interrelatedness. The implementation of EPA's recommended PM standards will hamper the nation's abilities to both preserve and improve its transportation

⁷ Unclogging America's Arteries, Effective Relief for Highway, Cambridge Systematics, Inc., (February 2004) available at: <http://trpc.org/regionalplanning/transportation/projects/Documents/Smart%20Corridors/americanuseralliancestudy.pdf>.

infrastructure. The retention of the current PM standards will, on the other hand, allow the nation to continue to make progress towards cleaner air while at the same time continue to pursue desperately needed transportation improvements vital to our economy, public health and safety. ARTBA looks forward to working with the Committee to achieve a cleaner environment through the continuation of proven technological and regulatory efforts.