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ELECTRONIC SUBMITTAL: www.regulations.gov

August 31, 2012

Air Docket U.S. Environmental Protection Agency Mail Code: 6102T 1200 Pennsylvania Avenue, NW Washington, DC 20460

RE: <u>Comments on EPA's Proposed National Ambient Air Quality Standards for</u>
Particulate Matter; Docket ID No. EPA-HQ-OAR-2007-0492

Dear Sir or Madam:

The Associated General Contractors of America (AGC) appreciates the opportunity to comment on the U.S. Environmental Protection Agency's (EPA) proposed National Ambient Air Quality Standards (NAAQS) for particulate matter (PM) 1 (proposed rule). AGC supports the establishment of reasonable air quality rules that are necessary, based on sound science and measurably improve public health. The Association supports EPA's proposal to maintain the primary hourly PM $_{10}$ NAAQS of 150 micrograms per cubic meter (µg/m 3). However, AGC opposes EPA's proposal to lower the annual NAAQS for particulate matter under 2.5 microns (PM $_{2.5}$) to between 12 µg/m 3 and 13 µg/m 3 and to add a new separate secondary PM $_{2.5}$ standard for visibility, for the reasons outlined in the comments below. If EPA does move forward with revising the PM standards, the Agency also has proposed air permitting transition programs that AGC supports as essential to provide stationary sources, particularly those planning modifications or reconstruction, a flexible transition to the new standard. AGC strongly opposes the imposition of near-road monitoring as it would measure mobile-source emissions instead of ambient air quality. AGC recommends that the current monitoring methods and frequencies be retained for both the PM $_{2.5}$ and PM $_{10}$ standards.

AGC is the leading trade association in the construction industry. It dates back to 1918, and it currently represents 33,000 firms in nearly 100 chapters across the United States. AGC's members include 7,500 of the nation's leading general contractors, nearly 12,500 specialty contractors and more than 13,000 material suppliers and service providers to the construction industry. These members engage in the construction of commercial buildings, hospitals and laboratories, schools, shopping centers, factories, warehouses, highways, bridges, tunnels, airports, levees, water works facilities and multi-family housing units, and they prepare sites and install the utilities necessary for housing development.

¹ 77 Fed. Reg. 38890 (June 29, 2012) (EPA-HQ-OAR-2007-0492).

The active phase of construction and the equipment used to perform this work is already regulated by both federal and state agencies to reduce particulate matter emissions. States with PM₁₀ non-attainment areas have fugitive dust regulations in place that apply directly to the construction industry. In many cases, construction firms must obtain permits and submit dust management plans for each active construction site, and the permits are reviewed and approved by local air pollution control officers. In addition, EPA has enacted federal engine emissions requirements for all new diesel engines used in construction equipment and mandates the purchase/use of ultra-low-sulfur diesel fuel. Despite these controls and the well-documented overall decline in PM emissions over the past 10 years, the current PM proposal would greatly increase the stringency of federal PM regulations and increase the number of areas designated as nonattainment. Additional nonattainment areas would result in additional requirements and restrictions on the business of construction. AGC is most concerned about the potential restriction on the use and operation of construction equipment that is currently out in the field, the loss of federal highway funding and the loss of economic development opportunities in urban areas. AGC and its members therefore have a great interest in the outcome of this proposed rulemaking.

I. PARTICULATE EMISSIONS CONTINUE TO DECLINE

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—and even further reductions in PM are anticipated to occur as a result of requirements being phased in over the next few years. According to the EPA's own data, concentrations of fine particulate matter have declined by 24 percent (annual standards) and 28 percent (24-hour daily standard) between 2001 and 2010.² 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 percent.³ Furthermore, this continuing improvement indicates the current regulations are having their desired effect.

Specifically, the Federal Highway Administration (FHWA) has documented a 50 percent reduction in PM emissions from on-road vehicle travel since 1990.⁴ Today's average motor vehicle produces 80 to 90 percent less emissions than it did in 1967, as a result of EPA's efficiency and fuel standards for mobile sources.⁵ As better motor vehicle and fuel technologies develop, vehicle emissions will continue to decrease, even as automobile usage increases.

² 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.

³ 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.

⁴ United States Department of Transportation, "Transportation Air Quality Selected Facts and Figures" p.28 (2006).

⁵ United States Department of Transportation, "Transportation Air Quality Selected Facts and Figures." (1999).

Moreover, advancement in clean diesel technology has resulted in diesel emissions being a small and declining contributor to the inventory of fine particles. Over the last decade in particular, the diesel industry has invested billions of dollars in development of cleaner diesel fuels, advanced engines and emissions control technology. The results of these investments can be seen in the tremendous progress made in clean air today. According to the most recent public EPA emissions inventory data, diesel engines of all kinds make up less than six percent of the national PM emissions inventory.

Specifically, the following mobile source rules are currently on the books and will achieve further significant and lasting reductions in particulates throughout the coming years—

- The 2004 low-sulfur gasoline standards and the low-emission vehicle standards will result in lower emissions of PM_{2.5}.
- The Heavy-Duty Diesel Highway Rule will result in lower emissions of PM_{2.5} from heavy-duty on-road vehicles. Phase in of this rule started with model year 2007.
- The Nonroad Diesel Tier 4 Rule and ultra-low sulfur diesel standards will result in lower emissions of PM_{2.5} from heavy-duty off-road equipment, such as construction equipment. The rule is being phased-in through 2014.
- The National Emission Standards for Hazardous Air Pollutants (NESHAP) for existing stationary diesel RICE (reciprocating internal combustion engines) will result in lower emissions of PM_{2.5} from existing stationary RICE as these machines are retrofitted in early 2013 with emission-reduction technologies.

Looking outside the construction sector, significant additional emission reduction are being achieved under EPA's new Clean Air Interstate Rule (CAIR) for power plants and additional reductions will be required over the next several years under the recently promulgated Utility Mercury and Air Toxics Standards (MATS) rule as well as measures directed at other source sectors such as the NESHAP for commercial, industrial and institutional boilers. EPA needs to give these programs a chance to work and fully consider whether they deliver benefits for reducing particulate matter before revising the current standard and seeking additional emissions reductions.

Given the additional PM-emission reductions that will occur with the implementation of the Clean Air Act programs noted above, EPA should be in a much better position at the time of the next five-year review of the PM NAAQS in 2018 to determine whether the standard is sufficient to achieve public health goals. To the extent, however, that EPA determines that revisions are necessary at this time (which AGC does not support), AGC offers the following comments with respect to the proposed levels of the standard, proposed new monitoring requirements and proposed implementation of the new standards.

II. PROPOSED PARTICULATE STANDARDS

EPA's proposal refers to thousands of pages of information contained in supporting EPA documents, including the Policy Assessment, the Integrated Science Assessment and the Risk and Exposure Assessment, all involving complex technical issues. Specifically, the proposal seeks comment on five PM NAAQS, including a novel urban visibility standard that is based on a highly subjective deciview metric. In consideration of the amount of data for review, these comments will address the feasibility of the timeframe for this rulemaking in the section "Rulemaking Timeline Unrealistic" below.

EPA has proposed to lower the annual $PM_{2.5}$ standard to a level within a range of 12 to 13 micrograms per cubic meter ($\mu g/m^3$) compared to the current annual standard of 15 $\mu g/m^3$. These new proposed levels approach naturally occurring background levels in many parts of the nation. The proposal would retain the current 24-hour $PM_{2.5}$ standard at 35 $\mu g/m^3$. It also would retain the existing secondary standard for $PM_{2.5}$. But it would establish a new, separate $PM_{2.5}$ secondary "welfare" standard that is focused on visibility. The proposed secondary standard for urban visibility is 28 to 30 deciviews, based on the 90th percentile of 24-hour average $PM_{2.5}$ measurements (over a 3-year period). Regarding coarse PM (PM_{10}), the proposal would retain the existing 24-hour standard of 150 $\mu g/m^3$, as well as the existing secondary standard for PM_{10} .

Other noteworthy provisions include a proposal to grandfather certain preconstruction permitting applications and a proposal to update the nation's PM_{2.5} monitoring network, including relocating monitors to measure fine particles near heavily traveled roads.

EPA's modeling⁶ shows that only two counties would fail to attain the new NAAQS in 2020 if the standard were 13 $\mu g/m^3$; an additional four counties would be in nonattainment at 12 $\mu g/m^3$.

However, air quality experts predict the EPA has likely underestimated the number of new non-attainment areas under the PM proposal, for a variety of reasons.

• First, EPA suggests that the new standards will impose very little burden because it has done computer modeling which finds that most of the country will achieve the new standards by 2020. But this is not how the Clean Air Act works. Under the statute, EPA is required to decide, based on current air quality data, whether an area meets or does not meet the standard. The initial designations under the new PM NAAQS would be based on 2011-2013 air quality data; this data would not capture the air quality improvement that EPA expects to occur with implementation of several air rules slated for 2015 and beyond. The fact that some or even most areas may meet the standards by 2020 is not relevant because the designation process under the new PM NAAQS must be finished by December 2014.

⁶ See EPA website at http://www.epa.gov/pm/2012/mapa.pdf.

- Second, EPA's estimates count only those counties with ambient air quality monitors and do not include other nearby counties that are part of the same "Metropolitan Statistical Area" and could consequently be designated non-attainment as well. Areas that do not currently meet the standard, and other nearby areas that "contribute" to exceedances of the new standard, must be designated as "non-attainment" areas.
- Third, EPA's estimates also do not consider the proposed roadside monitoring requirements coupled with the elimination of spatial averaging that would likely result in more areas being classified nonattainment (see related discussion in "Cost-Benefit Issues" and "Monitoring" sections below).

EPA's own models indicated that by 2020 almost all air monitors in the country would be able to attain the proposed annual $PM_{2.5}$ standard – *i.e.*, that only two counties would fail to attain the new NAAQS in 2020 if the standard were 13 μ g/m³; an additional four counties would be in nonattainment at 12 μ g/m³ – because of current and proposed federal air quality rules. In light of EPA's own predictions, AGC maintains that lowering the annual $PM_{2.5}$ standard at this time would be a huge drain on both state and EPA resources, as well as a huge cost to businesses and American consumers – all without commensurate benefits to public health. In the alternative, AGC urges the Agency to support a statutory change that would eliminate new regulatory burdens that, according to EPA, will not be necessary to meet the standards by 2020. Under such an approach, only a few counties identified by EPA would need to worry about the current requirements for nonattainment areas. All other parts of the country, according to EPA, will meet the new standards by 2020 and do not need to be burdened by additional regulations.⁷

III. COST-BENEFIT ISSUES

In setting its NAAQS, EPA does not have to consider the costs of implementing the standards. As typically done in NAAQS rulemaking, EPA has conducted a Regulatory Impact Analysis (RIA) to provide the public with information on the potential costs and benefits of attaining several alternative $PM_{2.5}$ standards. The summary of the RIA estimates costs range from \$2.9 million (for 13.0 $\mu g/m^3$) to \$69 million (for 12.0 $\mu g/m^3$) per year.

EPA's proposed PM NAAQS could be more costly than EPA's cost estimate, and its benefits are far more uncertain than EPA's benefits analysis indicates. According to leading environmental risk assessment experts, there are two main sections of EPA's proposal that could result in costs higher than what EPA has estimated—

⁷ This recommendation was offered by Former EPA official Jeffrey R. Holmstead at The Energy and Commerce Subcommittee on Energy and Power hearing on the implications of EPA's proposed NAAQS for fine particulate matter, June 28, 2012.

⁸ This was confirmed by the Supreme Court in *Whitman v. American Trucking Associations*, 531 U.S. 457, 465-472, 475-76 (2001).

⁹ See e.g., Statement of Anne E. Smith, Ph.D. (former economist in the USEPA's Office of Policy, Planning, and Evaluation and consultant to the USEPA Air Office) at The Energy and Commerce Subcommittee on Energy and Power hearing on the implications of EPA's proposed NAAQS for fine particulate matter, June 28, 2012.

- First, EPA proposes to require a new set of monitors placed near roads in each air quality area, while simultaneously proposing to eliminate area-wide averaging (where a determination of attainment is based on a spatial average of PM_{2.5} from all monitors in an area), so that attainment would be determined by each area's single worst-case monitor. EPA has not tried to estimate how much more "stringent" these changes will make the standard, and this change is not even addressed in the Agency's modeling. Given that it is highly likely that most near-road monitors will have higher PM_{2.5} readings than community-oriented monitors, this change is likely to make the proposed NAAQS much more stringent than EPA has estimated. EPA has not attempted to characterize how much *more* stringent the standard will become as a result of these two changes to the NAAQS, or its cost implications.
- Second, EPA proposes for the first time a secondary standard specifically to limit urban visibility degradation. The proposed visibility secondary standard would be set using a highly complex indicator called the "deciview." Experts in the assessment of visibility impacts report that seemingly small changes in the deciview level imply much larger changes in ambient PM_{2.5} concentrations and a uniform national deciview standard will limit ambient PM_{2.5} concentrations to very different levels in different cities. These two facts imply substantial uncertainty about the cost of the proposed rule.

In addition, EPA has failed to account for the cumulative impacts of its NAAQS. The promulgation of new PM standards will impose additional and numerous State Implementation Plan (SIP) requirements on states that are already implementing plans to address the current 24-hour PM_{2.5} standards as well as the 75 parts per billion (ppb) ozone standard. Under EPA's currently planned schedule for NAAQS reviews, a new ozone standard could be promulgated in 2014 that would require another layer of SIP development and implementation. Additionally, the recently promulgated one-hour NO₂ and SO₂ NAAQS will require attainment status designations and SIPs over the next several years.

EPA's estimates of the health benefits of the proposed PM NAAQS are also far more uncertain than EPA admits. The EPA Administrator's own rationale for setting the primary annual standard at a level no lower than $12 \,\mu\text{g/m}^3$ is based on the greatly increasing uncertainty that the Administrator expresses regarding EPA's own projections of health benefits from yet-lower PM_{2.5} levels. However, none of these admitted uncertainties are reflected in EPA's estimates of the benefits of the proposed rule.

Further, for the most part, EPA's estimate of benefits is predicated on a presumption that the statistical ("epidemiological") associations between chronic ambient PM_{2.5} concentrations and mortality risk are causal in nature, and that all PM_{2.5} constituents are equally potent. However, uncertainty about the causality presumption means there is a possibility that there will be no benefits at all from a tightened PM_{2.5} NAAQS. Causality uncertainty, which affects benefits

estimates from PM_{2.5} reductions at all levels (even benefits from reductions above the current standard), also is not reflected in EPA's benefits estimates.

IV. 'REAL' COSTS OF THE PROPOSAL ON CONSTRUCTION AND THE ECONOMY

EPA has not fully accounted for the real-world costs and burdens the PM proposal would impose on state and local governments, businesses and American consumers. Below are some of the likely impacts on the construction industry. These effects would ripple through the entire economy as construction creates jobs not only for construction workers but also *indirectly* from supplying construction materials and services and *induces* an even greater number of jobs when workers and owners in construction and supplier businesses spend their additional wages and profits, locally and nationwide.

Restrictions on Equipment Use

As EPA continues to tighten the PM NAAQS, states are challenged to find ways to further reduce particulate pollution from mobile sources. In geographic areas that do not meet EPA's PM standards, states may attempt to directly impose requirements through their SIP on the users of diesel engines to reduce emissions from the existing fleet of construction equipment. Although the CAA generally reserves for the federal government the authority to set emissions standards for either new or old engines in offroad construction equipment (a concept called federal preemption), some states have attempted (or currently are attempting) to include provisions in their SIPs that appear to violate this statutory prohibition—such as operating restrictions on the use of construction equipment; requirements to retire or replace older diesel equipment; or mandates (via contract specifications or bid preferences) to retrofit old nonroad engines. Restrictions on the use and operation of diesel equipment are, in essence, construction bans.

Loss of Federal Highway Funding

It also becomes even more difficult to build new roads or other transportation projects in areas that are designated as "nonattainment." Nonattainment areas are subject to 'Transportation Conformity'. This conformity analysis requires extensive transportation and air quality coordination and computer modeling to ensure transportation projects do not affect the area's ability to regain and/or maintain attainment. Transportation conformity requirements are time consuming, costly and include establishing a mobile emissions 'budget' from which to determine the impact transportation projects, once implemented, would have on regional air quality. In nonattainment areas, transportation projects can proceed only if it can be demonstrated that they will not result in increased emissions. Such construction bans would delay the renovation and improvement of public infrastructure, including highway and transit construction projects, and bridge construction and repairs.

To this end, delaying or threatening safety-related highway projects increases potential for injuries and fatalities to the traveling public. One-third of the nearly 43,000 highway deaths each year can be attributed to inadequate road infrastructure. Even a temporary freeze on new highway construction could prevent states from "obligating" their federal highway funds, which could, in turn, result in a loss of those federal dollars.

The delay of much needed repairs and investments to our roadways and transportation infrastructure will only exasperate air quality concerns. Traffic congestion wasted 2.8 billion gallons of fuel in 2007—approximately three week's worth of gas for every traveler.¹²

Restrictions on New 'Major' Stationary Sources & Major Modifications to Existing Ones

Once an area is designated as nonattainment, there is essentially a ban on the construction of new industrial or manufacturing facilities in this area, and it becomes very difficult even to expand existing facilities. This happens immediately because of new permitting requirements. Nonattainment areas face mandatory emissions offsetting; specifically, prior to permitting the construction of new facilities, a state must offset any emissions increases by achieving reductions at existing facilities. In addition, new and upgraded facilities in, or near, non-attainment areas are required to install the most effective emissions reduction controls without consideration of cost. Operators of existing facilities may also be required to install more restrictive control technologies than are otherwise required for similar units in areas that are in attainment.

Public Health and Welfare Impacts

Any tightening of the PM NAAQS could result in construction bans that would impede projects that are vital to improving municipal water supplies and wastewater treatment facilities located throughout the nation. While drinking water quality remains good, the water infrastructure is aging rapidly. Leaking pipes alone are responsible for billions of gallons of lost water every day. In addition, the nation's 16,000 wastewater systems face enormous needs. In many parts of the country, wet weather events regularly lead to overflowing systems that release waste and chemicals into the environment—damaging aquatic ecosystems and causing human illness. Threats to the nation's water resources investments caused construction bans would only work against EPA's complementary goals of improving water quality.

¹⁰ See Traffic Safety Facts, U.S. Department of Transportation ("DOT"), National Highway Traffic Safety Administration, 2000 and 2001.

¹¹ *Id*.

¹² Texas Transportation Institute, Texas A&M University, 2009 Urban Mobility Report, July 2009.

¹³ The 2009 Report Card for America's Infrastructure estimates 7 billion gallons of water lost per day due to leaking pipes. http://www.infrastructurereportcard.org/fact-sheet/drinking-water.

Impact on Economy¹⁴

Construction bans would inevitably lead to a massive layoff of construction workers and of workers who supply a multitude of materials, equipment, and services to construction. The construction industry (residential plus nonresidential) went into recession a year and a half before the overall economy and still has not emerged from it. Employment peaked at 7.73 million in April 2006, seasonally adjusted, and fell to 5.5 million (down 28 percent) by February 2010 and has remained near that level since then. The industry's unemployment rate in May 2012 was 14.2 percent, not seasonally adjusted, the highest of any industry. In spite of the recession, construction jobs remain good-paying jobs. In 2010, annual pay of all construction workers in the United States averaged \$49,588, 7 percent more than the average for all private-sector employees.

Construction bans also would have a negative impact on Gross Domestic Product (GDP) as well as a significant loss of jobs by construction service providers. The construction industry has played a powerful role in sustaining economic growth and helping the current economic recovery. Construction makes a disproportionately large contribution to GDP. An extra \$1 billion in nonresidential construction spending adds about \$3.4 billion to GDP, about \$1.1 billion to personal earnings and creates or sustains 28,500 jobs. Construction spending in 2005 totaled \$1.12 trillion; but it sank to \$790 billion in 2010, a 12-year low.

In addition, construction bans that would cut deeply into manufacturing shipments and return that sector into recession. Construction is an important source of orders for U.S. manufacturing. In 2011 U.S. manufacturers shipped \$444 billion in construction materials and supplies (9 percent of total factory shipments) and \$47 billion in new construction equipment (13 percent of total machinery shipments).

V. RULEMAKING TIMELINE UNREALISTIC

The consent decree that EPA entered into in order to propose this rule will dramatically and unrealistically shorten the time allowed for the EPA to consider and evaluate public comments on the proposed PM NAAQS revisions. EPA historically has taken much greater time to consider the voluminous and technically detailed public comments on NAAQS rulemakings. The current timeframe is well below previous rulemakings as well as below the amount of time the EPA has said is needed on this particular rulemaking. As a result, the consent decree saddles the EPA with an infeasible regulatory deadline, and gives it a strong incentive to provide only a passing and perfunctory review of comments that do not support the EPA's proposed modifications to the PM NAAQS. EPA's assumption that it can review and evaluate all of the comments, review all new scientific and technical data discussed in the comments, write a notice of final rulemaking explaining and justifying all its decisions in the final rulemaking, respond to relevant comments and arguments, write a response to comments document and coordinate as

¹⁴ Economic data compiled by Ken Simonson, Chief Economist, AGC of America, from Prof. Stephen Fuller, George Mason University, and U.S. government sources. June 5, 2012.

appropriate with the Office of Information and Regulatory Affairs (OIRA) in order to obtain clearance under the appropriate Executive Orders to issue the final regulations in under 100 days following the rule proposal is absurd.

As EPA Assistant Administrator Gina McCarthy (Office of Air and Radiation) unequivocally stated in her January 13, 2012, Declaration before the D.C. Court of Appeals, the PM NAAQS involve many "complex scientific, technical and policy issues of great public health significance." She stressed that it would be impossible to revise the PM NAAQS by 2013 – and now EPA has committed in settlement to do it by the close of 2012. The December deadline will also prevent EPA from weighing the conclusions of an ongoing EPA Office of Inspector General (OIG) investigation that has direct bearing on the PM NAAQS rulemaking. EPA should wait to finalize any new NAAQS standards for a period of at least one year after the OIG reports on its investigation into EPA's mismanagement of key advisory committees and scientific data. Critical EPA failures in these and other areas could have direct bearing on the science which underpins the proposed and upcoming revisions to the PM and ozone NAAQS.

There is simply no realistic way to achieve the December 14, 2012, deadline without relying on a predetermined answer that ignores public comments and undercuts valuable scientific review and deliberation. This is the opposite of open government, transparency, and sound science.¹⁵

VI. AGC SUPPORTS EPA'S PROPOSAL TO RETAIN THE PM_{10} STANDARD AT ITS EXISTING LEVEL OF 150 μ G/m³ as Rational and Supported by the Rulemaking Record

The Clean Air Act requires that EPA promulgate primary NAAQS that are "requisite to protect the public health" with an "adequate margin of safety." ¹⁶ In making its decision, the Administrator takes into consideration the Criteria Document, which reflects the "latest scientific knowledge useful in indicating the kind and extent" of public health impacts "which may be expected from the presence of such pollutant in the ambient air," EPA's Policy Assessments and the recommendations of the Clean Air Scientific Advisory Committee (CASAC). ¹⁷ The determination of the appropriate level of the standard requires the judgment of the Administrator to set a standard that is "requisite" to protect the public health or welfare, ¹⁸ which means "sufficient, but not more than necessary." ¹⁹ EPA is not required to follow CASAC's advice, but if the Administrator comes to a different conclusion, EPA must explain why its determination differs from CASAC recommendations. ²⁰

The Administrator's provisional conclusion that a more stringent PM₁₀ standard is not "requisite" to protect public health with an adequate margin of safety is rational and supported by the record

10

¹⁵ See President Barack Obama Executive Order "Transparency and Open Government," January 21, 2009. See also http://www.epa.gov/open/.

¹⁶ 42 U.S.C. § 7409(b)(1).

¹⁷ *Id.* §§ 7408(a)(2), 7409(d)(2).

¹⁸ *Id.* §7409(b)(1).

¹⁹ Whitman v. Amer. Trucking Assoc's., 531 U.S. 457, 473 (2001).

²⁰ 42 U.S.C. § 7409(d)(3).

before her. 21 AGC maintains that EPA should retain the current primary 24-hour PM $_{10}$ standard of 150 $\mu g/m^3$ for the following reasons—

- The PM Integrated Science Assessment concludes that recent health effects studies do not provide an adequate scientific basis for a revised PM₁₀ standard due to inconsistent findings, marginal or no effects, the effects of other pollutants, large regional variability and data deficiencies;
- The uncertainties associated with the recent coarse PM-related studies render them incapable of supporting a sound quantitative risk assessment; and
- The CASAC recommendation to reduce the primary coarse PM standard should be rejected, because it does not explain how the Committee considered the limitations of the coarse PM studies and is not consistent with the more specific advice of the Committee and its individual members.

Substantial Scientific Uncertainty Surrounds the Health Effects from Exposure to Course PM

In the period of time since EPA's determination in 2006 to retain the 24-hour standard of 150 $\mu g/m^3$, the body of scientific evidence linking coarse PM and health effects has not changed substantially.

The health data developed since the 2006 PM NAAQS review do not demonstrate the need for a coarse PM standard any more stringent than the existing 150 $\mu g/m^3$ standard. The well-documented flaws in the studies on which the existing 150 $\mu g/m^3$ standard is based are not resolved in the new studies cited by EPA as part of the current review.

EPA places substantial weight on the new study of PM_{10-2.5} health effects by Zanobetti and Schwartz multi-city study.²² However, concerns over the Zanobetti and Schwartz study documents, particularly "the large degree of variability [that] exists between cities when examining city-specific effect estimates," were raised in both the PM Integrated Science Assessment and in comments submitted by Dr. Jonathan Borak, MD, on the Second External Review Draft of the Integrated Science Assessment for Particulate Matter.

In addition, the uncertainties inherent in the epidemiologic studies of coarse PM health effects, coupled with the lack of human exposure studies, led EPA to forgo a quantitative risk assessment as part of this NAAQS review:

²¹ 77 Fed. Reg. at 38962.

²² Zanobetti A; Schwartz J (2009). The effect of fine and coarse particulate air pollution on mortality: A national analysis. Environ Health Perspective, 117: 1-

^{40.} http://hero.epa.gov/index.cfm?action=reference.details&reference_id=188462

[T]hese limitations would likely result in sufficient uncertainty in the resulting risk estimates to significantly limit their utility to inform policy-related questions, including the assessment of whether the current standard is protective of public health and characterization of the degree of additional public health protection potentially afforded by alternative standards. The lack of a quantitative PM_{10-2.5} risk assessment in the current review adds to the uncertainty in any conclusions about the extent to which revision of the current PM₁₀ standard would be expected to improve the protection of public health, beyond the protection provided by the current standard ²³

If the data are too uncertain to provide the basis for a risk assessment, as EPA acknowledges, they should not be relied upon to tighten the existing PM_{10} NAAQS.

It is also important to note that a more stringent standard, regardless of its form, would shift vast areas of the western U.S. into nonattainment. The economic dislocation that would result poses documented adverse health effects which, at a minimum, should be a consideration as the Administrator decides whether the existing standard is "requisite" to protect public health.

EPA Provided a Rational Basis an Approach that Differs from CASAC's Recommendations

The Clean Air Act requires EPA to consider CASAC's recommendations and either follow these recommendations or explain why the Administrator's proposal differs from the approach taken by CASAC. CASAC asserts in its review of the coarse PM standard that "[w]hile current evidence is limited, it is sufficient to call into question the level of protection afforded by the current standard." EPA's proposed rule fully explains the scientific grounds for maintaining the current standards and how the Administrator considered, but ultimately disagreed, with CASAC's recommendations. AGC supports the Administrator's policy judgment; the proposed rule strikes the appropriate balance required by the CAA between setting a standard requisite to protect the public health and ensuring that the standard is not more stringent than is necessary. 26

As required by the CAA, the Administrator acknowledges the different approach taken by the Agency in the proposed rule and discusses in detail the rationale for her decision. The Administrator summarizes her conclusion as follows:

[I]n making its recommendations on the current PM_{10} standard, CASAC did not discuss its approach to considering the important uncertainties and limitations in the health evidence, and did not discuss how these uncertainties and limitations are reflected in its recommendations . . . Given the importance of these uncertainties and limitations to the interpretation of the evidence . . . the

²⁴ 42 U.S.C. § 7607(d)(3).

²³ 77 Fed. Reg. at 38951.

²⁵ CASAC Review at ii.

²⁶ See Whitman, 531 U.S. at 473.

Administrator judges that it is appropriate to consider and account for them when drawing conclusions about the potential implications of individual PM_{10-2.5} health studies for the current standard.²⁷

EPA's proposed rule sets forth the body of science addressing health effects of coarse PM, discusses the uncertainties inherent in the science, and documents its disagreement with CASAC regarding the adequacy of the current standard to protect public health. AGC maintains that EPA has met its obligation under the CAA.

VII. AGC OPPOSES EPA'S PROPOSAL TO LOWER THE ANNUAL PM_{2.5}NAAQS

EPA's proposal would tighten the annual health standard for fine particles by setting the standard at a level within the range of $12 \,\mu\text{g/m}^3$ to $13 \,\mu\text{g/m}^3$. The current annual standard, $15 \,\mu\text{g/m}^3$, has been in place since 1997. AGC opposes this revision because of the many uncertainties that remain in the data and studies that EPA relied upon in its final review of the fine particulate standards. Such uncertainties are even acknowledged in the proposal itself, including those related to understanding the role of $PM_{2.5}$ in the complex ambient mixture that includes copollutants, the relative toxicity of the different components in the fine particulate mixture, exposure measurement errors inherent in epidemiological studies and the challenges associated with estimating the risks related to increasingly lower ambient $PM_{2.5}$ concentrations.

Although there are now more epidemiological studies reporting associations between $PM_{2.5}$ and adverse health effects than there were when the present 15 μ g/m³ standard was adopted, the new studies do not establish that the health risks posed by $PM_{2.5}$ in the ambient air are greater than those EPA took into account when it established the fine PM NAAQS in 1997and reaffirmed the level of the standard in 2006.

AGC maintains that more stringent NAAQS are justified only if the scientific evidence establishes that the exiting standards are less stringent than necessary.

VIII. AGC OPPOSES EPA'S PROPOSED SECONDARY VISIBILITY STANDARD FOR PM_{2.5}

AGC opposes the creation of a new, secondary urban visibility standard for a number of reasons—namely because visibility is not an "air pollutant" or a "criteria pollutant" and a NAAQS cannot be set for deciviews. The proposal would not produce a nationally uniform standard and, in fact, could result in a standard that varies significantly across geographic regions (or even within a state), thereby complicating implementation. The proposal also does not clearly explain how relative humidity, which has a significant impact on visibility, would be addressed – or the resultant impact of the highly variable correlations between visibility and PM_{2.5}. The proposed use of the Chemical Speciation Network (CSN) monitors is not currently suitable for characterizing visibility in urban areas. In addition, Clean Air Act Section 169 already contains an extensive visibility protection program whereby regional haze state

²⁷ 77 Fed. Reg. at 38962.

implementation plans are calling for the use of Best Available Retrofit Control Technology at large industrial and power plant sources. Finally, the handful of surveys on which EPA bases the proposed level of urban visibility are admittedly subjective and do not provide a reasoned iustification national secondary

Visibility Is neither a Pollutant nor a Criteria Pollutant

A deciview is a measure of visibility impairment, calculated from light extinction, which corresponds to changes in perception of visual conditions. 28 It is neither an air pollutant nor a criteria pollutant and therefore a NAAQS may not be established for deciviews. Compliance would be based on a combination of several speciated chemicals that are present in the atmosphere. These chemicals are not, either singly or in combination, criteria pollutants.

A quick glance at the applicable requirements ²⁹ reveals that every primary and secondary NAAQS (other than the proposed secondary visibility NAAQS) limits the concentration of a criteria pollutant that is allowed in ambient air. These other NAAQS comply with provisions of the Clean Air Act stating that when promulgating NAAQS "[t]he Administrator . . . shall publish proposed regulations prescribing a national primary ambient air quality standard and a national secondary ambient air quality standard for each air pollutant for which air quality criteria have been issued prior to such date . . ." (emphasis added). The proposed rule states "[t]he following [is a] national secondary standard for PM [30 or 28] deciviews (dv), 24hour average concentration . . . ". 31

A deciview is not a criteria pollutant that has been designated as such in accordance with Sections 108 and 109 of the CAA. A deciview is not an air pollutant of any kind. Although "air pollutant" is broadly defined in Section 302 of the CAA, ³² a deciview is a unit of humanly perceptible visibility, not "an air pollution agent or combination of such agents, including any physical, chemical biological, radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air."³³ A deciview is not an air pollutant but, rather, an "effect" on welfare.³⁴ Therefore, it is not an appropriate candidate for a NAAQS pursuant to Section 109.

The proposed rule attempts to establish a relationship between the visibility standard and the level of ambient PM_{2.5}. AGC maintains that compliance with the proposed deciview/visibility index standard is not based on the ambient level of PM_{2.5}, but rather on complex formulas that utilize measured levels of several speciated chemicals—including ammonium sulfate, ammonium nitrate, organic carbon, aluminum, silicon, calcium, iron and titanium—in addition to

²⁸ 40 C.F.R. § 51.301.

²⁹ 40 C.F.R. Part 50

³⁰ CAA § 109, 42 U.S.C. § 7409.

³¹ Proposed 40 C.F.R. § 50.19, at 77 Fed. Reg. 39041

³² 42 U.S.C. § 7502.

³³ 42 U.S.C. § 7602(h).

³⁴ 42 U.S.C. § 7602(h).

relative humidity (the "visibility formula"). These are not criteria pollutants under Sections 108 and 109.

The PM Criteria Document, by its terms, makes clear that the pollutant for which it is issued is particulate matter as a whole, not each of the thousands of chemical substances that might exist in particle form. It is not an air quality criteria document for ammonium sulfate, ammonium nitrate, organic mass, aluminum, silicon, iron and/or titanium—all of which are individual speciated chemical listed in the Appendix N equations for calculating deciviews. Certainly it is not a criteria document for relative humidity, another factor in the Appendix N equations that is not a particle of any sort.

The Criteria Document does not address the relationship between the individual compounds and visibility. Therefore, if EPA wishes to promulgate a rule such as its secondary visibility NAAQS, it first must make a finding that the speciated components listed in Appendix N endanger public health or welfare and then issue an air quality criteria document for those components. These steps are a necessary prerequisite for promulgation of a NAAQS—a prerequisite that is not satisfied by the PM Criteria Document and has not been satisfied otherwise.

A Visibility Standard Would Result in Nationally Variable Levels of Permissible Pollutant Concentrations

Because Appendix N includes relative humidity as a variable in calculating visibility in deciviews, and because relative humidity varies considerably across different regions of the country, and because the level of the speciated particles allowed under Appendix N will vary with relative humidity, the proposed standard is not a nationally applicable standard. Section 109(a) requires EPA to establish a "national" primary ambient air quality standard and a "national" secondary ambient air quality standard for "each air pollutant" for which air quality criteria have been issued. But this is not a national standard because the allowable level of the Appendix N particles could vary from region to region. ³⁵

The proposed standard is not consistent with Section 109 requirements that ambient air standards be "uniform" and "nationwide." It would allow regionally variable levels of Appendix N particles in ambient air. If we assume that Appendix N particles are criteria pollutants that otherwise meet the requirements of Sections 108 and 109, regional variability does not comply with the requirement that NAAQS specify nationally uniform levels of air pollutants.

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³⁵ As noted previously, the Appendix N particles are not air pollutants that meet the prerequisites for regulation pursuant to §§ 108 and 109. But even if that were not the case, this comment presents an additional reason why the proposed standard is not consistent with the CAA.

The Subjective Method for Identifying Purportedly Acceptable Levels of Visibility Is Not a Reasoned Basis for Proposing a National Visibility Standard

A secondary standard for urban visibility requires reasonable determination regarding what urban visual air quality (VAQ) levels are harmful to the public welfare. To make its determination in the proposed rule, EPA relied on a type of public survey it calls the "VAQ preference study" method. This is a highly simplistic survey, in which individuals are shown photographs of the same vista under a range of different visibility conditions, and asked to rate whether the VAQ in each photograph is "acceptable" or "unacceptable." The VAQ at which EPA considers public welfare to be adversely affected (the "VAQ cutpoint") is the VAQ level that at least 50 percent of survey respondents deem unacceptable. AGC strongly maintains that this subjective method for identifying purportedly acceptable levels of visibility is not an appropriate basis for proposing a national visibility standard.

EPA has based its proposed deciview level on a handful of surveys that asked 852 members of the public in four cities what they deemed to be an "acceptable" level of visibility in urban areas. EPA acknowledges that such surveys provide perhaps useful but "still quite limited information on the range of levels appropriate for consideration in setting a national visibility standard primarily for urban areas, given the *generally subjective nature* of the public welfare effect involved" (emphasis added). The survey participants were given no guidance regarding what is an "acceptable" level nor how to go about discerning acceptability. "The term 'acceptable' was not defined, so that each person's response was based on his/her own values and preferences for [visual air quality]." The subjects had a "momentary glance" at photographs showing different levels of visually obscured scenes. EPA acknowledges that no meaningful information was gathered regarding the duration of exposure or the variations in visual air quality—

The roles that exposure duration and variation in visual air quality within any given exposure period play in determining the acceptability or unacceptability of a given level of visual air quality has not been investigated via preference studies. In the preference studies available for this review, subjects were simply asked to rate the acceptability or unacceptability of each image of a haze-obscured scene, without being provided any suggestion of assumed duration or of assumed conditions before or after the occurrence of the scene presented.³⁹

AGC opposes EPA's proposed level of visibility because it is based on a handful of surveys that plainly do not represent a serious or reasoned basis for a national visibility standard that would require each of the 50 states to undertake extensive analyses, modeling and rulemakings to develop implementation plans to meet the standard. The surveys (1) gathered subjective input

³⁸ *Id.* at 38974.

³⁶ 77 Fed. Reg. at 38972-77, 38988-91.

³⁷ *Id.* at 38968

³⁹ *Id.* at 38972.

regarding "acceptability" from less than a thousand persons, (2) gave participants no definition or guidance regarding how to assess acceptability, and (3) restricted participants to a momentary look at a couple of dozen photos with no context regarding duration or variation. What is more, EPA makes no attempt to explain how the proposed level of the standard is neither lower nor higher than necessary to protect public welfare.

Any attempt to assess the need for and the possible level of a standard to protect urban visibility must be grounded in a serious scientific approach that can evaluate what standard would be neither higher nor lower than necessary to protect public welfare.

IX. AGC SUPPORTS EPA'S PROPOSAL TO "GRANDFATHER" PRECONSTRUCTION PERMIT APPLICATIONS

Major stationary sources which are located in attainment areas must comply with the Prevention of Significant Deterioration (PSD) program. Under PSD, new major sources and major modifications must apply best available control technology (BACT) for each applicable pollutant and conduct an air quality analysis to demonstrate that the proposed construction will not cause or contribute to a violation of any NAAQS.

EPA's proposal would revise EPA's PSD regulations to provide grandfathering from the new requirements for permit applications for which the public comment period has already begun at the time the revised PM NAAQS take effect. AGC supports this air permitting provision and believes that it is essential to provide sources that have already commenced permitting for projects prior to the effective date of the new standard a flexible transition to the new standard.

Specifically, EPA is proposing to grandfather an air permit (draft permit or preliminary determination) for new, modified or reconstructed sources that has been noticed for public comment prior to the effective date of the revised PM_{2.5} standard. AGC supports this proposal but recommends that EPA expand this exemption, at a minimum, to sources that have submitted a complete permit application. This would appropriately recognize and accommodate for the fact that very substantial resources would have already been expended by a source to meet various construction permitting requirements based on the existing NAAQS by the time a permit application is ready for submission to the authorized permitting agency.

EPA is also proposing an approach under the PSD program that would allow a demonstration of compliance with the primary PM_{2.5} standard as a surrogate for demonstrating compliance with the proposed secondary visibility standard. To the extent EPA retains a secondary visibility standard in the final rule (an approach that AGC does not support), AGC would support this proposed surrogate approach with the adoption of EPA's third option for its implementation that would establish by rule the applicability of the surrogate approach to all permitting applications.

AGC cautions EPA not to view this transition approach as eliminating the Agency's discretion to grandfather individual permits, even without an express exemption. Also, EPA should not set a sunset clause on any grandfathering provision included with the final rule. In addition, AGC

also recommends that EPA provide grandfathering for Nonattainment New Source Review (NNSR) permit applications.

X. AGC OPPOSES EPA'S ROAD-SIDE MONITORING PROPOSAL

EPA is proposing to require states already strapped with increased ambient air monitoring requirements for the 1-hour NO2 and SO2 standards to relocate a significant number of their air monitors to "near roadway' locations. AGC strongly recommends that the current monitoring methods and frequencies be retained for both the PM_{2.5} and PM₁₀ standards. AGC opposed EPA's proposal to place PM monitors "near roadway" locations. EPA has not addressed the many possible nonattainment issues associated with data generated from this monitoring. In addition, near-road monitoring is measuring mobile-source emissions instead of ambient air quality.

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. The NAAQS is set to be an ambient air quality standard; the monitoring sites should reflect ambient air conditions to which a significant portion of the public is exposed – not conditions specific to one location. Emissions are naturally going to be higher in some areas of a county and lower in others.

Leading air experts suggests that the near-road concentrations could be substantially higher than at the standard community-based monitors presently being used to assess attainment. Thus, near-road monitors can reasonably be expected to become the worst-case monitors for each air quality area. Simultaneously, the proposed rule also would eliminate the ability to determine attainment using the spatially-averaged concentration across all the monitors in an area, meaning that attainment will now be determined by concentrations measures at each area's single worst-case monitor. This means that one can fully expect that attainment of the PM_{2.5} NAAQS will be determined by the future near-road monitors. Given that it is highly likely that many areas' near-road monitors will have higher PM_{2.5} readings than community-oriented monitors, the proposed NAAQS will become much more stringent and therefore more difficult to attain than it would be if based on the current monitoring network.

XI. EXCEPTIONAL EVENTS

EPA's Exceptional Events Rule (EER) allows the EPA to exclude certain air-quality monitoring data when determining whether or not an area violates a national ambient air quality standard(s) (NAAQS). As discussed above, failure by any state to prove compliance with federal air standards can have serious repercussions for construction in the area(s) so designated – including potential restriction on the use and operation of equipment, the loss of federal highway funding and the loss of economic development opportunities.

The proposed rule appropriately would extend certain deadlines for states to flag and document PM_{2.5} exceptional events, ⁴⁰ but is silent regarding such deadlines for PM₁₀ exceptional events. If the final rule makes the PM₁₀ NAAQS more stringent, AGC recommends that EPA also extend the deadlines for states to flag and document PM₁₀ exceptional events. AGC also urges EPA to ensure that exceptional events related to natural events, such as high winds, are treated in such a way that allows a state or local agency a clear path to exclude the data caused by these types of events at a reasonable cost. AGC understands that many states do not have the resources required to meet the demonstration requirements for an exceptional event. Furthermore, in many rural areas, insufficient monitoring is available to demonstrate the "clear causal" relationships between an exceptional event and a measured exceedance even when simple visual observations would establish such a relationship.⁴¹

AGC chapters and members in arid western states face significant air quality challenges brought on by chronic wildfires, dust storms and high winds; they report that EPA has not consistently applied its Exceptional Events Rule (EER). Many of the concerns and criticism over the EER center around the lack of clarity on what a state should include in its demonstration package, a lack of consistency between the preamble and the rule itself, as well as delays in processing and approving exceptional event submissions.

States face strict deadlines to make attainment determinations that could hinge on whether or not data affected by exceptional events are included or excluded. A state must submit costly and complicated demonstration projects to EPA for its review (and for public comment) before it may exclude any exceedance(s) of any air quality standard(s) caused by naturally-occurring events such as dust storms. However, EPA is under no pressure to review this paperwork in a timely manner. To this end, the current regulations governing exceptional events demonstrations leave the decision entirely at the discretion of the EPA, and the decisions are not subject to appeal.⁴²

A preliminary review of the draft guidance shows that it does little to correct these problems. In addition, the draft guidance would leave several other well-documented concerns unresolved—

- It would set a "wind threshold" for what constitutes high wind events for all arid areas
 and anything below the threshold would require extensive information and data to show
 that the event was not reasonably controllable or preventable. But depending on local
 circumstances and conditions, the actual wind speed required to cause dust exceedances
 from undisturbed and reasonably controlled surfaces will vary greatly.
- A lack of precipitation would be excluded from the definition of exceptional events.

⁴⁰ 77 Fed. Reg. at 39004-05.

⁴¹ On a related front, EPA is currently is accepting public comment on draft guidance to improve the process for implementing the Agency's Exceptional Events Rule (EER). AGC plans to submit separate comments on EPA's June 2012 draft guidance to the Exceptional Event Rule. We encourage EPA to use the forthcoming guidance to remove unnecessary restrictions that currently hamper the utility of that rule.

⁴² See 42 U.S.C. § 7619(b)(A)(iv) and 40 C.F.R. § 50.149.

• To establish an exceptional event, a state would need to show that the event caused a specific concentration, at a specific place. Doing so is difficult, for example, given the lack of particulate matter (PM) monitors and the high spatial variability of PM.

In light of likely adoption of a more stringent federal particulate matter and ozone standards expected to drastically increase the number of non-attainment areas across the nation, it is critical that EPA streamline the information required for demonstration submittals, the processing of requests and the underlying ambiguities in the rule. But moving ahead with guidance rather than a formal revision to the rule would mean less regulatory certainty and could violate federal rulemaking procedures under the Administrative Procedures Act.

XII. CONCLUSION

AGC is concerned that a significant increase in the number of PM nonattainment areas that would result from this rulemaking would put at risk important transportation construction projects needed to move goods and people and provide employment. Further, potential restrictions on the use and operation of diesel equipment would leave other important construction projects unbuilt, including those to provide for safe drinking water, wastewater and stormwater management, flood control and navigation, health care, and education.

Air quality is clean and getting significantly cleaner even as our economy continues to grow. Any tightening of the PM NAAQS will have significant consequences for many states and localities and will impact their ability to provide for economic growth and opportunity as well as for public health and welfare. AGC urges EPA to reconsider its proposed revisions to the existing PM NAAQS that would tighten them and allow EPA rules currently in place and future actions and voluntary initiatives to achieve PM attainment.

AGC appreciates the opportunity to comment. Thank you for taking our concerns into account. If you have any questions, please contact me at pilconisl@agc.org or (703) 837-5332.

Sincerely,

Leah F. Pilconis

Senior Environmental Advisor to AGC of America

Leah Pilconis