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The Aluminum Association

June 29, 2020

Submitted via www.regulations.gov

Dr. Scott Jenkins
Health and Environmental Impacts Division
Office of Air Quality Planning and Standards
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711

RE: Review of the National Ambient Air Quality Standards for Particulate Matter, Proposed Action, Docket ID No. EPA–HQ–OAR–2015-0072

Dear Dr. Jenkins:

The Aluminum Association (the "Association") appreciates the opportunity to comment on the EPA's recent *Review of the National Ambient Air Quality Standards for Particulate Matter, Proposed Action* as noticed on April 30, 2020 (85 FR 24094).

The Aluminum Association is based in Arlington, Virginia, and represents United States primary aluminum producers, aluminum recyclers, and producers of fabricated aluminum products, as well as industry suppliers. Across the United States, Association members operate over 200 manufacturing facilities engaged in all facets of aluminum operations. The United States aluminum industry directly and indirectly accounts for over 712,000 jobs and creates an economic impact of $186 billion, which is just over 1% of US GDP. It provides crucial material inputs to industries such as transportation, building, construction, and packaging while maintaining a substantial commitment to sustainable operations. Numerous member manufacturing facilities are affected by the setting of NAAQS levels and according to the EPA's National Emissions Inventory (NEI) data, the US aluminum industry has reduced the emissions of NAAQS regulated criteria pollutants from its production operations by over 60% over the past 20 years. Based on the extensive impact that the setting of NAAQS levels has on the aluminum industry along with the significant reductions already made in industry criteria pollutant emission levels, the Association's

Air Workgroup has significant interest in the PM NAAQS proposed action and is providing the comments below for EPA's consideration in finalizing it.

Retention of the Existing NAAQS

The current primary and secondary NAAQS for $PM_{2.5}$ (annual average standards with levels of 12.0 $\mu g/m^3$ and 15.0 $\mu g/m^3$, respectively; 24-hour standards with 98th percentile forms and levels of 35 $\mu g/m^3$) and PM_{10} (24-hour standards with one-expected exceedance forms and levels of 150 $\mu g/m^3$) are all proposed for retention in their current structure based upon EPA's recently completed statutorily-required review.

Retention of the $PM_{2.5}$ primary standard

Systematic Review

The NAAQS causal framework used in the PM NAAQS review process, the EPA's "Framework for Causal Determination", lacks a robust systematic review structure that would ensure a reliable evaluation of the body of scientific evidence available, specifically the nature of the epidemiological evidence and the limitations of the approaches used to interpret that evidence. Despite repeated recommendations for a systematic, transparent, and unbiased review of the strengths and weaknesses of the key epidemiologic studies that were provided during the ISA public comment period, EPA staff failed to conduct such a review. The failure to conduct such a review prevented full understanding of whether the current standard continues to provide the requisite protection of public health. Had a full systematic review been undertaken, EPA would have confronted the many important weaknesses affecting the $PM_{2.5}$ epidemiology studies and their use in forming judgments regarding causal relationships.

As detailed in prior comments submitted by the National Council for Air and Stream Improvement (NCASI), the lack of a robust systematic review structure results in an increased risk of bias, decreased reproducibility, and decreased transparency. This subsequently impacted the conclusions that EPA staff reached through the Integrated Science Assessment (ISA) process and notably impaired the utility of that document to inform policy making for the $PM_{2.5}$ primary standard. However, in the proposed action the EPA Administrator has properly demonstrated his understanding of the limitations of the approaches used to interpret the available evidence.

Uncertainties

The EPA Administrator notes that the overall body of evidence, including controlled human exposure and animal toxicological studies, in addition to epidemiologic studies, indicates significant continuing uncertainty as to the degree to which adverse effects could result from $PM_{2.5}$ exposures in areas meeting the current annual and 24-hour standards. A significant majority of CASAC members similarly noted significant uncertainties with the dataset as it currently exists –

Cox – "The current draft PA is based largely on epidemiological evidence of positive associations between exposures and health effects in studies that do not fully test and control for confounding, coincident historical trends, and other non-causal sources of associations….The resulting conclusions and predictions are not scientifically valid and should not be used to guide policies that are to be based on sound science."

Lange – "Upon review of the information in the PM PA, it seems that there are still unknowns with copollutants, [concentration-response] functions are still plagued by problems with innate variability that makes them difficult to interpret, none of the studies on regional heterogeneity adequately explained the reasons for the city-specific heterogeneity, and it is not clear what components or sources are causing the observed effects. Therefore, it does not seem that many of the key uncertainties have been reduced in this review."

Lipfert – "Causality in air pollution epidemiology must rest on five requirements [exposure, toxicity, translocation, susceptibility, accountability], none of which has been established for $PM_{2.5}$"

North – "I believe the level of uncertainty on mortality and other health effects from PM addressed in the PA from exposures at, below, or slightly above the current NAAQS is high."

Sax – "EPA only presents a limited uncertainty analysis that incorporates only the statistical uncertainty in the effect estimate derived from the epidemiological study. Other important sources of uncertainty are not quantified."

Policy Judgement

At the point of unsettled science, an inadequate systematic review process, and significant scientific uncertainty, the Administrator properly exercised prudent policy judgement in the

decision to retain the existing $PM_{2.5}$ primary standard without revision. Additionally, the Association believes that the currently available data and its subsequent analysis do not support lowering the $PM_{2.5}$ primary standard from its existing level.

Retention of the $PM_{2.5}$ secondary standard and the PM_{10} primary and secondary standard

As regards retention of the PM10 primary and secondary standard and the $PM_{2.5}$ secondary standard, the EPA Administrator, EPA staff, and CASAC are all in agreement that no change to those existing standards is needed based on the available information indicating that public health protection continues to be provided by the existing standards in this area. The Association believes that the currently available data and its subsequent analysis do not support lowering the $PM_{2.5}$ secondary standard and the PM_{10} primary and secondary standards from their existing levels.

Contextual Factors

The Clean Air Act allows the Administrator to take account of context when determining the acceptability of incremental health risks and specifically directs CASAC to advise the Administrator on the social, economic, or energy effects which may arise from NAAQS implementation. This context and its related effects are particularly important for the current PM NAAQS review where the benefits from lowering the $PM_{2.5}$ primary NAAQS level in particular are highly uncertain.

Consideration of new facilities and major modification of existing facilities can be significantly impacted by a decision to lower PM NAAQS levels. Modeling to demonstrate planned project compliance with PM NAAQS levels becomes increasingly challenging as the amount of permitting 'headroom' for these projects is reduced with lowered PM NAAQS levels, particularly when accounting for naturally occurring and existing/background PM levels. This has the potential to make or break major project decisions and result in significant socioeconomic detriment in situations when PM modeling to demonstrate compliance cannot be obtained.

In the aluminum industry, modeling compliance with the existing PM NAAQS can already be a challenge. Association members note particular challenges at large aluminum sheet rolling facilities with co-located ingot casting operations as well as at secondary aluminum recycling locations. At these types of locations where modifications, expansions, or greenfield construction is contemplated, the large number of stacks, their relatively low stack heights, and the often close

proximity of facilities to property lines create compliance modeling challenges that are compounded by the already conservative biases of the model. This often results in significant additional project capital expenditure for modeling consultants, raising of stack heights, relocation of existing infrastructure, additional controls, and in some situations can result in cessation of project consideration.

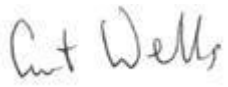
The Clean Air Act also contains serious and immediate consequences for areas that do not obtain a PM NAAQS level, in the form of non-attainment designations for those areas. This designation can have further socioeconomic impact resulting from further curtailment of existing facility permitted PM levels and the prevention of business growth and expansion opportunities.

Based on all the considerations above, the Association again finds that the Administrator's policy decision to retain the existing PM NAAQS without revision finds the right balance between the significant uncertainties in the current evidence of potential health effects below the current PM NAAQS and the certain significant socio-economic impacts if the current PM NAAQS is lowered.

The Association is also a member of the NAAQS Regulatory Review and Rulemaking (NR3) Coalition and supports their comments on this proposed action that are being submitted under separate cover.

The Association is pleased to provide these comments on the PM NAAQS review and if you have any questions about the information provided above, please contact Curt Wells, the Association's Senior Director of Regulatory Affairs, at (703) 358-2976, (804) 385-6351 or cwells@aluminum.org.

Sincerely,



Curt Wells
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The Aluminum Association