

Oral Comments of Shyamala S Rajan, Director of Nationwide Clean Air Policy  
American Lung Association  
to  
Clean Air Scientific Advisory Committee (CASAC) NO<sub>x</sub> Review Panel, Environmental Protection  
Agency (EPA) on NO<sub>2</sub> NAAQS Integrated Review Plan  
April 16, 2024

Good Afternoon, I am Shyamala Rajan, Director of Nationwide Clean Air Policy at the American Lung Association. The American Lung Association has a long-standing commitment to the principles of the Clean Air Act, including the requirement of setting primary National Ambient Air Quality Standards for criteria pollutants at levels that protect public health based on current science. On behalf of the populations with lung disease that we serve, I offer 4 comments for CASAC's consideration, some of which reiterate the points we made in our detailed written comments to EPA on its RFI last year.

1. **PECOS Study Evaluation** – We ask that well-designed epidemiological studies conducted outside the United States not be excluded in the ISA, if they meet the other PECOS criteria. Such studies could influence the weight of evidence in causality determinations and therefore should not be excluded just because of the study locations. Given the spatiotemporal variability of ambient air across any location, even within the US, flexibility in geographic requirements must be afforded in study selection if the long NAAQS review process is to effectively capture current science.

We note that Canada, whose ambient air likely resembles that of the US has adopted much more stringent long-term and short-term standards for NO<sub>2</sub> based on the same scientific literature that is available to the EPA. Canada's current 1 hour standard of 60 ppb is set to be revised to 42 ppb next year, and its current annual standard of 17 ppb is set to 12 ppb in 2025, the forms for both standards being the same as current NO<sub>2</sub> NAAQS.

2. **Climate change** Climate Change is directly impacting human health in multiple ways and it is also contributing to ambient air pollution. There are numerous studies that show an increasing trend in the number of lightning strikes and also in more intense and frequent Lightning-Ignited Wildfires caused by climate change. These events impose a penalty on ambient air pollution by increasing levels of criteria pollutants including NO<sub>x</sub>. As such, the collective impacts of climate change on atmospheric chemistry and on human health need to be included in NAAQS considerations.
3. **Elements of NAAQS** - We ask that in this review you evaluate all elements of the NO<sub>2</sub> NAAQS. Exceedances allowed in Design Value calculations - through the current forms of the NAAQS, in monitor data completeness requirements, in data truncations or rounding conventions in addition to demonstrated exceptional event exceedances - do not constitute or contribute to NAAQS violations in regulatory assessments, but nonetheless affect public health. Therefore, a comprehensive assessment of all components of NAAQS is needed to ensure effective public health protection.
4. **Margin of Safety** – The Clean Air Act calls for the inclusion of a margin of safety to account for scientific uncertainties and as yet unidentified health hazards to protect vulnerable

subpopulations. To be truly effective in protecting all groups, the standards must include a holistic and comprehensive accounting of the cumulative impacts of other risk factors. Nitrogen oxides are air pollutants that are not produced in isolation nor are they inhaled in isolation. Cumulative impacts of co-pollutants, climate change effects, as well as intrinsic and extrinsic vulnerabilities including socioeconomic factors & life-stages significantly influence the health endpoints that are associated with NO<sub>2</sub> exposure for all sub-populations but particularly so for Environmental Justice communities. Quantifying these impacts and applying them in determining the NAAQS is essential to truly satisfy the Margin of Safety requirement of the CAA.

The last NO<sub>2</sub> NAAQS review process was completed on April 18, 2018 and the current process should have been completed last spring. We therefore urge the CASAC to move expeditiously now to ensure that the NO<sub>2</sub> NAAQS align with current science to better protect public health from NO<sub>x</sub> exposures.

National air quality reviews delayed are clean air protections denied.

Thank You for your consideration.