

Matthew Mehalik, Ph.D.
Executive Director
Breathe Project
Energy Innovation Center
1435 Bedford Ave. Suite 140
Pittsburgh, PA 15219
412-514-5008
mmehalik@breatheproject.org
breatheproject.org

Remarks for Public Comment

Virtual Public Hearing

Review of the National Ambient Air Quality Standards for Particulate Matter

May 20, 2020

Session #1

Ref. Docket ID No. EPA-HQ-OAR-2015-0072

Thank you for holding this hearing. I appreciate the opportunity to comment on the EPA's proposed action regarding the National Ambient Air Quality Standards (NAAQS) for Particulate Matter.

The Breathe Project is a Southwestern Pennsylvania organization that constantly avails itself of top-level health, epidemiological, and air quality science and public health information. We are a collaboration of over 42 organizations working to improve air quality, eliminate climate pollution and make our region a healthy and prosperous place to live. We are public health professionals, academics, environmental advocates, and citizens. We use the best available science and technology to better understand the quality of the air we breathe and provide opportunities for citizens to engage and take action.

The EPA Administrator's decision to leave the Particulate Matter standards unchanged is a crystal-clear mistake that will result in many tens of thousands of people being grievously harmed in our country overall and in Southwestern Pennsylvania in particular. These harms will include early deaths, cardiac diseases, respiratory diseases, and cancers, among other certain negative health endpoints.

The EPA's own risk assessment, which is and has been the method for determining the impacts of regulatory changes, calculated that 17,000 long-term PM_{2.5} exposure-related deaths from heart disease in a single year will occur by just meeting the current annual standard of 12 ug/m³.

Instead, if the standard matched the World Health Organization's annual standard of 10 ug/m³, these deaths can be reduced by up to 18% (3060 people) per year. This number jumps up to 27% (4590 people) per year at an annual standard of 9 ug/m³. These numbers are just from heart disease deaths.¹

Overall, it is possible prevent over 12,500 premature deaths per year by embracing a 9 ug/m³ annual standard.²

¹ 85 FR 24094, pp. 24117-24118.

² U.S. EPA. Policy Assessment for the Review of the National Ambient Air Quality Standards for Particulate Matter, January 2020. EPA-452/R-20-002.

Moreover, the review of science literature affirms PM 2.5 exposure levels and chronic health effects with no apparent lower bound³ and acute health effects with no apparent lower bound⁴. This means that it is critical to reduce the PM standard in order to reduce negative health effects.

The negative consequences for ignoring these crystal-clear scientific findings will be particularly impactful in Southwestern Pennsylvania. Our region already suffers from some of the worst air pollution in the United States. According to an analysis of our region’s pollution sources from the National Emissions Inventory, particle pollution from stationary industrial point source pollution is the largest contributor to our region’s pollution, accounting for approximately two-thirds of our region’s pollution. Air quality ranks “not good” two thirds of all days in our region.

Figure 1 shows a analysis of data from one of our region’s monitors in Allegheny County, Liberty, (which has a 2016 – 2018 annual design value of 12.6 ug/m3), indicates measurements that rank worse than 97 percent of data from all monitors throughout the U.S. and exceeds the current standard. Data from two other nearby monitors (Braddock, Parkway) exceed the world health standards and rank worse than 94 percent of all monitors in the U.S. Across Allegheny County, data from 9 monitors have been in the worst 30 percent of all monitors nationally, and the region has averaged only one monitor above the 50th percentile nationally.

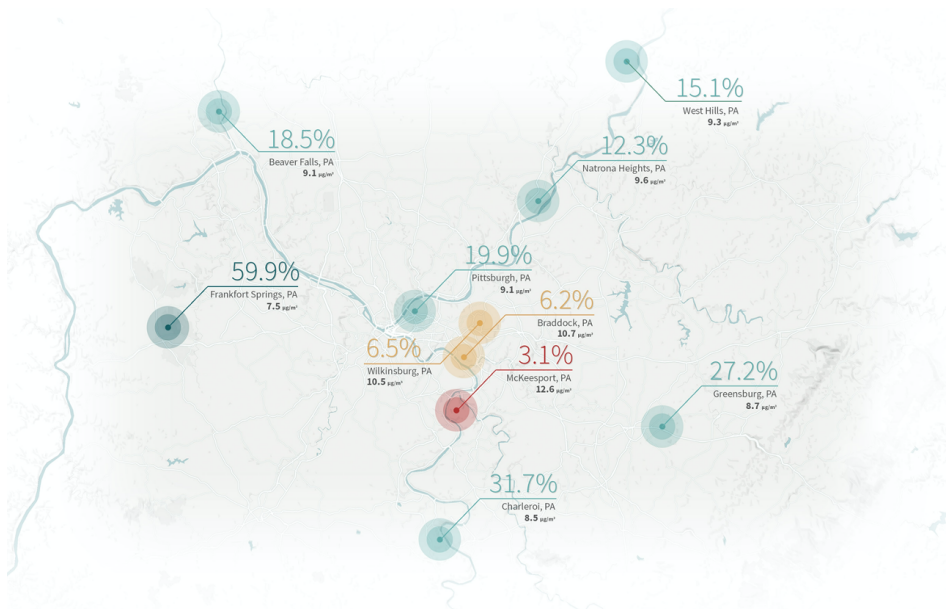


Figure 1: Pittsburgh Area PM2.5 Annual DVs 2016-2018. Chart shows Pittsburgh regional monitor locations, names, national percentile rank, and 2016 - 2018 annual design value. The Liberty monitor, labeled “McKeesport, PA,” ranks at the 3.1 percentile of the national monitoring network. The Braddock monitor ranks at the 6.2 percentile. The parkway monitor (labeled “Wilkinsburg, PA”) ranks at the 6.5 percentile. Analysis completed by Clean Air Task Force, 2019.

³ Cohen, Brauer, et al, “Estimates and 25-year trends of the global burden of disease attributable to ambient air pollution: an analysis of data from the Global Burden of Diseases Study 2015,” Lancet 2017; 389: 1907–18.

⁴ Schwartz et al, “The Concentration Response Relation between PM 2.5 and Daily Deaths,” Environ Health Perspect. 2002 Oct; 110(10): 1025–1029.

Allegheny County ranks in the top 2 percent of counties in the U.S. for cancer risk from point source air pollution. Our air poses a significant threat to public health with an increased risk of heart and lung disease, asthma, diabetes, cancer and premature death.⁵

The American Lung Association's (ALA) annual "State of the Air" (SOTA) report for 2020 again put the Pittsburgh region on notice. Allegheny County once again received straight Fs for daily particulate matter levels, long-term particulate matter levels, and ozone.

The region still ranks in the top-10 worst regions in the country (8th overall) and retains the dubious distinction for being the only metropolitan region east of the Mississippi River to be ranked in the top 25 most polluted cities.

A 2017 study of asthma in regional schools found children exposed to the highest levels of PM 2.5 had nearly a two-fold risk of having a diagnosis of asthma. In the city of Clairton, where North America's largest coking operation and the region's largest source of particle pollution exists, 34% of the children were at risk for asthma compared to the national rate of 8% and the state and county rates of 10-13%.⁶

All of these tragic statistics for Southwestern Pennsylvania can be traced directly to the fact that the current annual standard of 12 ug/m3 is not serving the region adequately. Our region's air regulator, the Allegheny County Health Department, has the authority under the state of Pennsylvania and the Clean Air Act to enforce air quality standards. Their most recent submission to the PM 2.5 State Implementation Plan set as a target an annual average of 12 ug/m3 for PM 2.5. The Allegheny County Health Department repeatedly states that their authority is limited to enforcement of the standard. This means our region will lock into place the negative health outcomes that are outlined in this testimony if the annual standard is maintained.

Our region's 2.6 million people are at risk if the current standard is maintained. This includes vulnerable populations who bear disproportionate risks from current levels of air pollution: 48,000 children with pediatric asthma; 214,000 people with adult asthma; 160,000 people with COPD; 220,000 people with cardiovascular disease; 291,000 people living with low incomes; and 363,000 people who are non-white.⁷ The environmental justice concerns are clear, substantial, and should not be ignored. Ignoring the risks to vulnerable people will be a shame on our region and country.

Our region clearly needs a more health protective standard for PM 2.5. Because the scientific studies mentioned earlier have identified no lower bound as a threshold for safe exposure, a new standard should be as health protective as possible. The Breathe Project encourages the EPA to set its annual standard to 8 ug/m3, the level at which there is a clear consensus of evidence suggesting benefits for reducing PM 2.5 emissions below this level as an annual standard. Let's save thousands of lives,

⁵ <https://breatheproject.org/resources/air-pollution-sources/> and https://breatheproject.org/app/uploads/2018/03/18-02-26_health_facts.pdf

⁶ Gentile, Deborah, "Asthma in Our Region's School Children," Journal of Asthma, 2020 (in review).

⁷ ALA SOTA 2020, Available online: <http://www.stateoftheair.org/city-rankings/states/pennsylvania/allegheny.html>, accessed 05/20/20.

reduce burdens on vulnerable people, and take action that makes everyone proud of our country by embracing this standard.

Thank you for your time and consideration.

Sincerely,

Matthew M. Mehalik, Ph.D.
Executive Director
Breathe Project