

Alert is a monthly update on transportation and air quality planning activities in the Delaware Valley.

## **Air Quality Regulations**

U.S. Environmental Protection Agency Advances Review of the Annual Fine Particulate Matter Standard.

On May 23, 2022, the U.S. Environmental Protection Agency (EPA) published the *Policy Assessment for the Reconsideration of the National Ambient Air Quality Standards for Particulate Matter*. According to the EPA, the policy assessment presents a staff analysis of the scientific basis for policy options for consideration by senior EPA management prior to rulemaking. This policy assessment is an interim action that updates the analysis of scientific literature, which is considered when the EPA determines whether the National Ambient Air Quality Standards (NAAQS) should be updated to protect public health and welfare as required by the Clean Air Act.

The Clean Air Act requires that the NAAQS be reviewed every five years to include the latest scientific research on the impacts of air pollution on human health and the environment. The EPA reviewed the  $PM_{2.5}$  NAAQs in 2019 and the Clean Air Scientific Advisory Committee and agency staff recommended that the Annual  $PM_{2.5}$  Standard be strengthened while retaining the current 24-Hour Standard. The agency ultimately ruled to retain both standards in a final decision that was published in December 2020.

In June of 2021, the EPA announced that it would reconsider the agency's 2020 decision to retain the 2012 PM<sub>2.5</sub> NAAQS. The EPA cites the body of scientific evidence that shows that long- and short-term exposures to fine particles can harm people's health, particularly for children, people with heart or lung conditions, and people living in environmental justice communities, as a reason for this action. The agency further cites a number of recent studies that demonstrate the relationships between air pollutants and susceptibility to COVID-19.

The DVRPC region currently meets 2012 the Annual PM<sub>2.5</sub> standard of 12 micrograms of particles per cubic meter of air ( $\mu$ g/m<sup>3</sup>) and the 2006 24-hour standard of 35  $\mu$ g/m<sup>3</sup>. The region does occasionally experience episodes of elevated levels of PM<sub>2.5</sub> particularly when weather conditions allow pollutants from transportation and industry to accumulate in the atmosphere. These days can occur in the summer on hot-stagnant days with little air flow or during winter days when air in the atmosphere is warmer than the ground temperatures.

The EPA has stated that it will include environmental justice considerations in its decision to revise the NAAQS, noting that local communities, especially those near major transportation routes with heavy diesel truck traffic can experience higher PM<sub>2.5</sub> levels than the regional average and suffer disproportionate impacts from particulate matter.



Ongoing

PA DEP Level 2 EV Charging Station Rebates

For more information, please visit:

www.dep.pa.gov and search "Level 2 Charging Rebates"

> Friday August 19, 2022

Deadline for Applications: US EPA Clean School Bus Rebate Program

For more information, please visit:

www.EPA.gov and search "Clean School Buses" The EPA expects to issue a proposed rulemaking on the PM<sub>2.5</sub> NAAQs this summer with a Final Rule expected in 2023.

See more information on the NAAQS for PM2.5 on the EPA website.

## U.S. EPA Proposes Rule to Reduce Pollution from Heavy-Duty Vehicles and Engines

On March 28, 2022, the EPA published a proposed rule that would set new, more stringent standards to reduce pollution from heavy-duty vehicles and engines. The rule would take effect with model year (MY) 2027 vehicles. The proposed standards would significantly reduce emissions of nitrogen oxides (NOx) from heavy-duty gasoline and diesel engines and set more stringent greenhouse gas standards for certain commercial vehicle categories.

 $NO_x$  is a major constituent of ground-level ozone and contributes to the formation of  $PM_{2.5}$ . On-road mobile sources account for over 30% of all  $NO_x$  emissions nationally and heavy-duty vehicles represent almost 89% of that pollution.

The EPA last strengthened the heavy-duty vehicle emissions standards in 2001. The EPA notes that improvements to clean vehicle technologies, including advances in fuel cell and electric vehicles, presents an opportunity to drastically improve the emissions from the heavy-duty vehicle and engine sector. The EPA intends to finalize this proposal by the end of 2022.

The EPA has published a fact sheet to outline the costs and benefits of the "<u>Heavy-Duty 2027 and</u> <u>Beyond:Clean Trucks Proposed Rulemaking</u>" which can be viewed the EPA Website.

## **Air Quality News**

## **Recent Study Shows the Benefits of Anti-Idling Campaign at Schools**

Researchers at the University of Utah published an article in the journal *Atmosphere,* which shows the potential for anti-idling campaigns to reduce localized air pollution concentrations at schools. The study showed that pollution concentrations experience seasonal variability and are influenced by local weather conditions, but can be reduced by effective campaigns to reduce vehicle idling in school drop-off zones where vulnerable populations are exposed to these pollutants.

The study tracked two anti-idling campaigns in Salt Lake County, Utah to understand if these efforts lead to behavioral change and subsequent reduction in vehicle related air pollution at the subject schools. "Idling at schools during drop-off and pick-up times is a substantial problem," says study lead author Daniel Mendoza, a research assistant professor in the University of Utah's Department of Atmospheric Sciences and visiting assistant professor in the Department of City & Metropolitan Planning. "The anti-idling campaign was effective in reducing not only the number of vehicles idling but also the length of idling." The research found a 38% decrease in idling time following an anti-idling campaign and an 11% decrease in the number of vehicles idling at the school drop-off zones.

Many school districts have rules against school bus idling while picking up students, but Mendoza notes that parents' vehicle idling is not included in these rules. He finds that an effective campaign explaining the benefits of anti-idling for their children's health can further reduce localized air pollution.

Air quality measurements taken at the schools showed spikes in localized air pollutants during and after the drop-off periods. The researchers intend to do follow up studies to gauge how long the benefits of the antiidling campaign last and to determine if these campaigns have benefits for in-door air quality at the schools.

An overview of the anti-idling study can be read on the University of Utah website.



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DVRPC NEWS IS FUNDED THROUGH GRANTS FROM THE FEDERAL HIGHWAY ADMINISTRATION (FHWA), THE FEDERAL TRANSIT ADMINISTRATION (FTA), THE PENNSYLVANIA AND NEW JERSEY DEPARTMENTS OF TRANSPORTATION, AND DVRPC'S MEMBER GOVERNMENTS. DVRPC FULLY COMPLIES WITH TITLE VI OF THE CIVIL RIGHTS ACT OF 1964 AND RELATED STATUTES AND REGULATIONS IN ALL PROGRAMS AND ACTIVITIES. FOR MORE INFORMATION, OR TO OBTAIN A TITLE VI COMPLAINT FORM, VIEW THE DVRPC WEBSITE, WWW.DVRPC.ORG, OR CALL 215.238.2871.