dvrpc | January 2013

Alert

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

Air Quality Regulations

US EPA Announces Stricter Standard for Fine Particulate Matter

On December 14, 2012, the U.S. Environmental Protection Agency (EPA) announced that the agency was finalizing a new and stricter annual standard for fine particle pollution, also known as $PM_{2.5}$. This announcement will lower the $PM_{2.5}$ Annual standard to 12 micrograms per cubic meter ($\mu g/m^3$) of air, from the previous standard of 15 $\mu g/m^3$. This new standard will not impact the daily $PM_{2.5}$ standard set in 2008.

The new standard was proposed in June and is based on the advice of the EPA's Scientific Advisory Board and the review of thousands of health studies. Evidence from the health studies indicate that fine particle pollution poses a threat to public health at lower levels than were previously thought. Fine particle pollution is composed of microscopic bits of liquids, solids, and sometimes carcinogenic materials that can penetrate deep into the lungs and even the blood stream. $PM_{2.5}$ pollution has been shown to aggravate respiratory disease, cardiac disease, and even cause premature death.

When reviewing the National Ambient Air Quality Standards (NAAQS), the EPA is required by the Clean Air Act, to review the scientific evidence for the impacts of the pollutant on public health and the environment. The agency relies on a group of independent experts (Clean Air Scientific Advisory Committee) to review the most recent studies on the impacts of the pollutant. The agency also considers public input when setting the new standards. The Clean Air Act does, however, forbid the EPA from taking the cost of implementing the standard into consideration when setting the new NAAQS.

The DVRPC region was found to be meeting the previous (15 $\mu g/m^3$) annual fine particle pollution standard in 2012 but anticipates being designated a non attainment area for this new standard sometime in 2013. The EPA indicated that 99 percent of counties that are identified as not meeting this new standard in 2013 should meet the standard by 2020 by implementing clean air regulations that are currently on the books or scheduled for implementation.

For more information on EPA's announced 2012 Annual $PM_{2.5}$ NAAQS revision, please visit: www.epa.gov/pm

Save the Date

Monday,
January 14, 2013
Philadelphia Diesel Difference Working Group
10:00 am
Location of Meeting:
DVRPC Conference Center
8th Floor
6th and Race Streets
Philadelphia, PA

Friday,
February 1, 2013
Application Deadline

PA DEP Natural Gas Vehicle Grant Program

See information on reverse page.

Transportation and Air Quality

Study Shows Regional Congestion Can be Reduced by Targeted Transportation Demand Management

Transportation Demand Management (TDM) has been a strategy promoted by regional planners to reduce congestion on the nation's roadways since the 1970s with varying degrees of success. According to researchers, led by scientists at Massachusetts Institute of Technology (MIT), targeting TDM to specific neighborhoods would significantly improve the strategy's effectiveness.

The MIT study, published in the journal *Scientific Reports,* in December 2012, uses traffic modeling data to demonstrate that canceling or delaying the trips of one percent of all drivers across a road network would reduce delays caused by congestion by only about three percent. But canceling the trips of one percent of drivers from carefully selected neighborhoods would reduce the extra travel time for all other drivers in a metropolitan area by as much as 18 percent.

The researchers used data from drivers' cellphones to show that the adoption of TDM strategies to reduce trips by a small percentage of people across a metropolitan area might not be very effective. However, if the same number of people, from a carefully selected segment of the driving population, chooses not to drive at rush hour, this could reduce congestion significantly

The researchers inferred a driver's home neighborhood from the regularity of the route traveled and from the locations of cell towers that handled calls made between 9 p.m. and 6 a.m. They combined this with information about population densities and the location and capacity of roads in the networks of two metropolitan areas -- Boston and San Francisco -- to determine which neighborhoods are the largest sources of drivers on each road segment, and which roads these drivers use to connect from home to highways and other major roadways.

Because the new methodology requires only three types of data -- population density, topological information about a road network, and cellphone data -- it can be used for almost any urban area. When considering the billions of hours of delay and the billions of gallons of fuel wasted due to traffic congestion nationally each year, this study may provide an effective, low cost alternative to mitigate traffic congestion.

Information for this article was originally printed in *Science Daily* and can be viewed at:

www.sciencedaily.com/releases/2012/12/121220143742.htm

Information

Pennsylvania DEP Announces Grant Funding for Natural Gas Vehicles

The Pennsylvania Department of Environmental Protection (DEP) has announced a new three-year Natural Gas Energy Development Program. This program is funded by impact fees instituted under PA Act 13 and will make $20 million in grant funds available on a competitive basis to purchase or convert eligible vehicles to natural gas.

Grants will be awarded to pay for 50 percent of the incremental costs to purchase or retrofit natural gas vehicles and awards are capped at $25,000 per vehicle. The grant application deadline is February 1, 2013.

The grant application and guidance can be downloaded at www.dep.state.pa.us. Use keyword: "Act 13

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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.