

# A!ert

dvrpc | July 2015

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



## Air Quality Regulations

### Stricter Ozone Standards Increase the Need for Air Quality Measurements and Improved Monitoring Science

A stricter federal standard for ozone pollution under consideration by the U.S. Environmental Protection Agency (EPA) would increase the importance of scientific measurements and models to track the sources of pollutants that lead to the formation of ground-level ozone. These findings were published in a new commentary in the June 5, 2015 edition of *Science* by researchers at the National Oceanic and Atmospheric Administration (NOAA).

In November 2015, the EPA proposed lowering the primary ozone standard from 75 parts per billion (ppb) to 70 or 65 ppb, based on ozone's known effects on children, the elderly, and people who have lung diseases, such as asthma. Ozone is a pollutant that has respiratory health effects in humans and also impairs plant growth and damages crops. It is produced when emissions of nitrogen oxides (NOx) and volatile organic compounds (VOCs) react in the presence of sunlight. Controls on NOx and VOC emissions from vehicles, power plants, and other sources have enabled many U.S. counties to meet the 75 ppb standard, but the number of counties in "nonattainment" status (currently 227 counties) would jump to 358 or 558 counties if the standard is revised to 70 or 65 ppb, respectively.

The problem for state and local officials is that ozone pollution has several sources, some of which are beyond their borders. At any given place, a certain amount of ozone pollution comes from local emissions by vehicles and other sources. Additional amounts can blow in from pollution sources across the ocean or in other parts of the United States. Ozone is also produced from natural sources or descends from the upper atmosphere's ozone layer

The NOAA commentary suggests that to quantify how much ozone flows into the United States from all upwind sources, additional measurements would be needed from instruments on the ground, on balloons and on aircraft. These observations could help scientists and air quality managers evaluate the performance of the computer models that are used to determine sources of ozone at a particular location. Once the models can successfully replicate the observed ozone levels, scientists and air quality managers will have greater confidence in the model estimates of how much of that observed ozone is beyond the reach of domestic control measures.

That information is critical because the U.S. regulatory framework has procedures for exceptions and other allowances if non-local factors are significant for a given locality. Those outside factors have been growing in



## Save the Date

Thursday,  
July 23, 2015

**Public Meeting: FY 2016 NJ  
TIP, Connections 2040 Long-  
Range Plan Amendments  
and Conformity  
Determination for TIPs and  
Plan**

**4:00 – 6:00 pm**

*Location of Meeting:  
DVRPC Conference Center  
8<sup>th</sup> Floor  
6<sup>th</sup> and Race Streets  
Philadelphia, PA*

Thursday,  
July 30, 2015

**Public Meeting: FY 2016 NJ  
TIP, Connections 2040 Long-  
Range Plan Amendments  
and Conformity  
Determination for TIPs and  
Plan**

**4:00 – 6:00 pm**

*Location of Meeting:  
Cherry Hill Library  
1100 Kings Highway North  
Cherry Hill, NJ*

recent decades, with sources in southern and eastern Asia pushing up the baseline of ozone that enters the western U.S., as an example.

"The ozone baseline is rising, especially in high-elevation regions of the western U.S. that are more strongly influenced by high ozone coming from upwind sources or from the stratosphere. Lowering the federal ozone standard to protect public health will reduce the wiggle room for air quality managers. We point out that measurements and science will be crucial to successfully navigating the new regulatory landscape," according to Owen Cooper of the Cooperative Institute for Research in Environmental Sciences and NOAA's Earth System Research Laboratory,

The EPA has stated that it will assist states in ensuring that sources of ozone outside of U.S. borders do not create unnecessary control obligations. A decision on the new ozone standard by the EPA Administrator is expected in October 2015. The DVRPC region is expected to be designated as a nonattainment area for the new, stricter ozone standard, regardless of which level is selected.

For more information on NOAA's comments on the 2014 Ozone standard, please visit:

<http://www.colorado.edu/news/releases/2015/06/05/stricter-limits-ozone-pollution-would-boost-need-science-measurement>

### Supreme Court Rules Against EPA Regulations Limiting Mercury Emissions from Power Plants

On June 29, 2015, the U.S. Supreme Court ruled against the EPA's Mercury Air Toxic Standards (MATS) that would place limits on emissions of mercury and other hazardous air pollutants from power plants that used coal or oil as their primary source of fuel for power generation.

The MATS rule was enacted by EPA in 2011 and power generators were given until April 2015 to meet the standard. The rule was challenged in court by 21 states, mostly in the South and Midwest, and industry groups. The Supreme Court rejected the rule in a 5-4 vote on the grounds that EPA did not consider the costs of implementing controls when determining whether the standards were appropriate and necessary. The court's decision focused solely on interpreting legal language in a specific section of the Clean Air Act that dealt with applying mercury regulations to power plants. Justice Scalia, writing for the majority, claimed that it is not appropriate to impose billions of dollars of economic costs in return for a "few dollars" in health and environmental benefits.

The EPA maintains that costs were considered at multiple stages when setting the MATS that would reduce toxic emissions by 90 percent at an annual cost of \$9.6 billion. The opinion doesn't prohibit the agency from limiting mercury emissions from power plants, so long as the EPA demonstrates that the regulations are still deemed "necessary and appropriate" to protect public health when considering the costs of the regulation. The EPA said it is reviewing the court's decision and will determine any appropriate next steps once a review is completed.

There are approximately 600 power plants that the EPA has been regulating under the rule, and about 460 of those are coal-fired plants. In recent years, U.S. utilities have been shifting away from coal, the most polluting electricity source according to the EPA, in recent years, propelled by a combination of low natural-gas prices and tougher environmental regulations, especially the MATS. The EPA says power plants are the single largest source of U.S. emissions of mercury, a neurotoxicant that can be particularly harmful to children and unborn babies.

According to the Environmental Defense Fund, 70 percent of power plants already have installed controls to comply with the MATS.

For more information on the EPA's Mercury Rules, please visit:

<http://www.epa.gov/airquality/powerplanttoxics/basic.html>



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