dvrpc | March 2014

Alert

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

Air Quality Regulations

U.S. EPA Announces New Sulfur Emission Limits

On Monday, March 3, 2014, the U.S. Environmental Protection Agency (EPA) announced new rules that would limit the amount of sulfur in gasoline from 30 parts per million (ppm) to 10 ppm. This rule, known as the Tier 3 Vehicle Emissions and Fuel Standards Program, is aimed at reducing emissions from cars and trucks that contribute to ozone and fine particle pollution ($PM_{2.5}$).

According to the EPA, the Tier 3 Fuel Program would not only reduce sulfur emissions, which contribute to $PM_{2.5}$ pollution, but will also result in significant reductions in nitrogen oxides (NO_x), volatile organic compounds (VOCs), and carbon monoxide (CO). VOCs and NO_x are the major constituents of ozone and CO is a toxic gas in its own right.

The Tier 3 Fuel Standards would require oil refineries to install equipment that would reduce the sulfur content of gasoline beginning in 2017, with a goal of total compliance by 2025. Reduction of the other gases would be coincidental to the processes that reduce sulfur emissions. Reduced sulfur content in fuel allows for catalytic converters in vehicles to work more effectively by reducing sulfur build-up in the converter which interferes with emissions reductions. It is expected that the combination of sulfur removal from the fuel and co-benefits to emissions controls on vehicles will result in NO_x emissions being reduced by 29%, VOC emissions by 26%, and CO emissions by 38%. This translates into NO_x reductions, in the DVRPC Region, of approximately 25 tons per day in Pennsylvania and 10 tons per day in New Jersey in 2017. These improvements are expected to reduce ozone and $PM_{2.5}$ pollution in regions not meeting the National Ambient Air Quality Standards (NAAQS) and help the American public realize $6 to $19 billion in health care costs annually, by 2025.

The rule is being supported by the Alliance for Automobile Manufacturers, which represents General Motors, Ford, and Toyota, because the rule will bring U.S. fuel standards in line with California and other developed nations such as Japan, Korea, and the European Union. This standardization will allow automakers to sell the same cars in all major markets and meet new emissions standards that are included in the Tier 3 regulation with automobiles already on the road in those markets.

The American Petroleum Institute (API) has come out against the new rule, stating that the implementation timeframe is too short and will cost consumers between $0.06 and $0.09 per gallon due to refiners passing the capital costs of removing the sulfur from the fuels on to the consumers. EPA Director Gina McCarthy counters that the new rule will add approximately $0.01 per gallon of gasoline and that the agency worked very closely with small refineries to build in flexibility to extend the compliance timeframe so that smaller refineries can plan

Save the Date

Monday,
March 10, 2014

Philadelphia Diesel Difference Working Group
10:00 am – 12:00 pm

Location of Meeting:
DVRPC New Jersey Room
8th Floor
6th and Race Streets
Philadelphia, PA

Thursday,
April 3, 2014

Application Deadline
Pennsylvania Transportation Alternatives Program

Please visit
www.dvrpc.org/TAP/
For more information

for capital improvements required by the rule. EPA has also included a longer phase-in period for heavy duty vehicles in the rule.

The oil industry including the API, are expected to continue to challenge the rule and may even initiate a lawsuit to block its implementation, however, the rule has widespread support from diverse interests such as environmental and health advocates and automobile manufacturers.

For more information on EPA's Tier 3 Fuel Standard, please visit: www.epa.gov/otaq/tier3.htm

Air Quality Information

Study Finds that Methane Leaks Negate Benefits of Natural Gas as a Fuel for Vehicles

A recent study, published in the journal *Science,* by researchers from Stanford University, Massachusetts Institute of Technology (MIT), and the U.S. Department of Energy concludes that the effects of climate change from methane leaks from the extraction, storage, and transportation of natural gas outweigh the benefits of using natural gas for fueling vehicles.

Methane is found in natural gas deposits and is a much more potent greenhouse gas than carbon dioxide (CO_2). The study concluded that levels of methane in the atmosphere are a signal that there are more methane leaks in the natural gas production chain than previously thought. The study states that those leaks negate the climate change benefits of using natural gas as a transportation fuel even though using natural gas as a transportation fuel results in 30 percent less CO_2 emissions at the tailpipe, compared to burning diesel fuel.

The study's findings add weight to efforts by New York and other northeastern states to push the federal government to regulate methane emissions from oil and gas production. These efforts are being resisted by the oil and gas industries who claim that methane is a valuable commodity that the industry is actively working on recovering, thus making regulation unnecessary.

On a positive note, the study reports that using natural gas instead of coal to fuel power plants does reduce greenhouse gas emissions despite methane leaks in the supply chain. Using natural gas as a power plant fuel emits less than half the carbon pollution than coal even when accounting for potential methane leaks.

The full study "Methane Leaks from North American Natural Gas Systems" is available in the Journal *Science 14 February 2014: 733-735* and can be downloaded at www.sciencemag.org.

U.S. EPA Announces Air Quality Awareness Week for 2014

The U.S. EPA has announced that Air Quality Awareness week will be held April 28 through May 2, 2014. Air Quality Awareness Week is an opportunity for agencies and communities to raise awareness of air pollution issues and recommend actions that the public can take to reduce air pollution.

Since Air Quality Awareness Week coincides with the beginning of ozone season in the Greater Philadelphia Region, it is a good time to remind the public to check the air quality forecast and to take actions to protect their health and reduce emissions.

DVRPC will be posting information about air quality throughout the week on its social media sites and invites planning partners to share this information with their stakeholders.

The EPA has posted resources and information about Air Quality Awareness Week, including toolkits for educators at: www.epa.gov/airnow/airaware/resources.html.

If you would like to coordinate efforts or events for Air Quality Awareness Week with the Air Quality Partnership, please contact Sean Greene at sgreene@dvrpc.org.

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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.