



Kimberly D. Coy; kcoy@air-comp.com

Kimberly D. Coy
Air/Compliance Consultants, Inc. (ACCI)
www.air-comp.com

PADEP Issues Report on Short-term Air Quality Impacts from Marcellus Shale Operations in Northeast PA

PADEP issued a report on January 2011 based on a four-week air quality study conducted near Marcellus Shale natural gas operations in Susquehanna and Sullivan counties. In conclusions, the study concluded that emission levels would not constitute a concern to the residents living near the Marcellus Shale operations. The study, however, was not meant to address potential cumulative impacts.

Air monitoring was conducted at a completed and operating gas well, two compressor stations, and a well site being fracked. The study focused on measurements of volatile organic compounds, including benzene, toluene and xylene, as well as carbon monoxide and nitrogen dioxide. In addition, DEP used a specialized infrared camera that can detect emissions of certain pollutants from a source that otherwise may be invisible to the naked eye.

The findings of the surveys are outlined below:

- Concentrations of methane, ethane, propane and butane, and associated compounds were detected in the air near Marcellus Shale drilling operations.
- Elevated methane levels were detected in the ambient air during short-term sampling conducted at two compressor stations and two well sites.
- Certain compounds, mainly methyl mercaptan, were detected at levels which generally produce odors.
- Results of the limited ambient air sampling initiative in the northeast region did not identify concentrations of any compound that would likely trigger air related health issues associated with Marcellus Shale drilling activities.
- Sampling for carbon monoxide, nitrogen dioxide, sulfur dioxide and ozone, did not detect concentrations above National Ambient Air Quality Standards at any of the sampling sites.
- A specialized infrared camera detected fugitive and direct emissions from the well equipment. These emissions may contribute to the ambient concentrations detected at the site.

PADEP also conducted similar air-monitoring studies near Marcellus gas facilities in north-central PA. Those results are currently being evaluated. In November 2010, PADEP conducted a similar air monitoring study in southeast PA, with similar results.