

June 5, 2014

Environmental Quality Board  
P.O. Box 8477  
Harrisburg, PA 17105-8477

***Re: Comments on Pennsylvania's Proposed Additional RACT Requirements for Major Sources of NOx and VOCs***

Dear Chairman Abruzzo and Members of the Environmental Quality Board:

Thank you for the opportunity to comment on your proposal to satisfy the Clean Air Act's reasonably available control technology requirements (RACT) under the national ambient air quality standards (NAAQS) for ozone. As the Commissioner of the Department of Energy and Environmental Protection (DEEP), the Pennsylvania Department of Environmental Protection's (PADEP's) counterpart agency in Connecticut, I understand the planning and technical efforts necessary to develop a proposal regulating major sources of air pollution and applaud your staff's efficiency in making this proposal now, several years before the January 1, 2017 deadline for implementing regulatory actions necessary to meet the RACT requirement under the 2008 ozone NAAQS.

Connecticut is penalized by its geography. We rely on timely reductions of transported pollution to receive the health benefits provided by the Clean Air Act, and thus we have examined the Environmental Quality Board's proposal with the need to reduce ozone transport firmly in mind. Now, upwind activities preclude Connecticut from attaining and maintaining the 2008 ozone NAAQS, despite the best efforts of DEEP to reduce in-state ozone precursor emissions from many sources.

Given our focus on ozone transport, we examined the proposed emission limits for nitrogen oxides (NO<sub>x</sub>) with particular interest. We have several concerns with the proposed NO<sub>x</sub> emissions limits for coal-fired combustion units. According to EPA's Air Markets Program data tool, Pennsylvania has 64 coal-fired electric generating units (EGUs) with a total capacity of 20,278 MW. These coal-fired units are a significant source of emissions in the region and contribute significantly via transport to ozone levels in nearby states. Of the 64 coal-fired EGUs in Pennsylvania, half are controlled by selective catalytic reduction or selective non-catalytic reduction (SNCR).

The Ozone Transport Commission (OTC) has recently recognized that many EGUs, including some in Pennsylvania, appear not to be operating air pollution control equipment during the ozone season. The lack of operation of control equipment results in significant levels of emissions, particularly on high electric demand days. Data analyzed by the Maryland Department of the Environment (MDE) show that the emissions from Pennsylvania EGUs with control equipment that is not operated are significant – over 200 tons a day on high electric demand days. The figures attached to this letter, prepared by MDE, illustrate the emissions rate increases at Pennsylvania coal-fired units at which control equipment is not operated and the magnitude of these emissions. We see RACT under the 2008 ozone NAAQS as the means to address this issue throughout the OTC and hope you will revise your proposal

to require the operation of existing NO<sub>x</sub> control equipment throughout the ozone season as such a measure is technologically and economically feasible. Ozone season reductions, especially reductions on days that are peak electric demand days, are crucial to achieving attainment of the 2008 ozone NAAQS in Connecticut and throughout the OTC region.

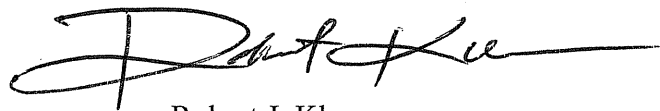
Another concern about the coal-fired EGU requirements is the level of the proposed emissions limits for NO<sub>x</sub>: 0.45 lbs/MMBtu for large units and 0.35 lbs/MMBtu for very large units. EPA's RACT guidance has indicated that emissions rates and levels of control achieved in practice by similar sources are RACT for that source category. Other states in the OTC including Delaware, New Jersey and New York have in place more stringent emissions limits for coal-fired units, and the Environmental Quality Board should meet the benchmark established by other states or require PADEP to provide an analysis to justify that those more stringent limits are not RACT in Pennsylvania.

The proposal includes an averaging time of a 30-day rolling average, which is applied to NO<sub>x</sub> emissions from every type of regulated unit. While such an averaging time may be RACT for a unit that operates continuously, units that operate intermittently, such as peaking units, are appropriately subject to much shorter averaging times of 24-hours or less. Please consider revising the proposal accordingly.

The proposed NO<sub>x</sub> emissions limits for municipal waste combustors are a final area of concern to Connecticut. The Board proposes only that municipal waste combustor operators meet emissions limits established in federal emissions guidelines. While the hazardous air pollutant emissions limits in the federal guidelines are Maximum Achievable Control Technology-based, and thus may be RACT for volatile organic compounds, the NO<sub>x</sub> limits are not MACT-based and are not RACT. Several systems are available to control NO<sub>x</sub> emissions from municipal waste combustors including SNCR and Covanta's Low NO<sub>x</sub> (LN<sup>TM</sup>) technology, which allow an operator to achieve NO<sub>x</sub> emissions well below the limits in the federal guidelines. New Jersey and Connecticut have adopted NO<sub>x</sub> emissions limits lower than the federal guidelines. Massachusetts has proposed to adopt and Connecticut is developing a regulatory amendment to adopt even lower NO<sub>x</sub> emissions limits in conjunction with RACT planning for the 2008 ozone NAAQS. We encourage the Board to do the same given that NO<sub>x</sub> limits more stringent than those of the federal emissions guidelines are now RACT.

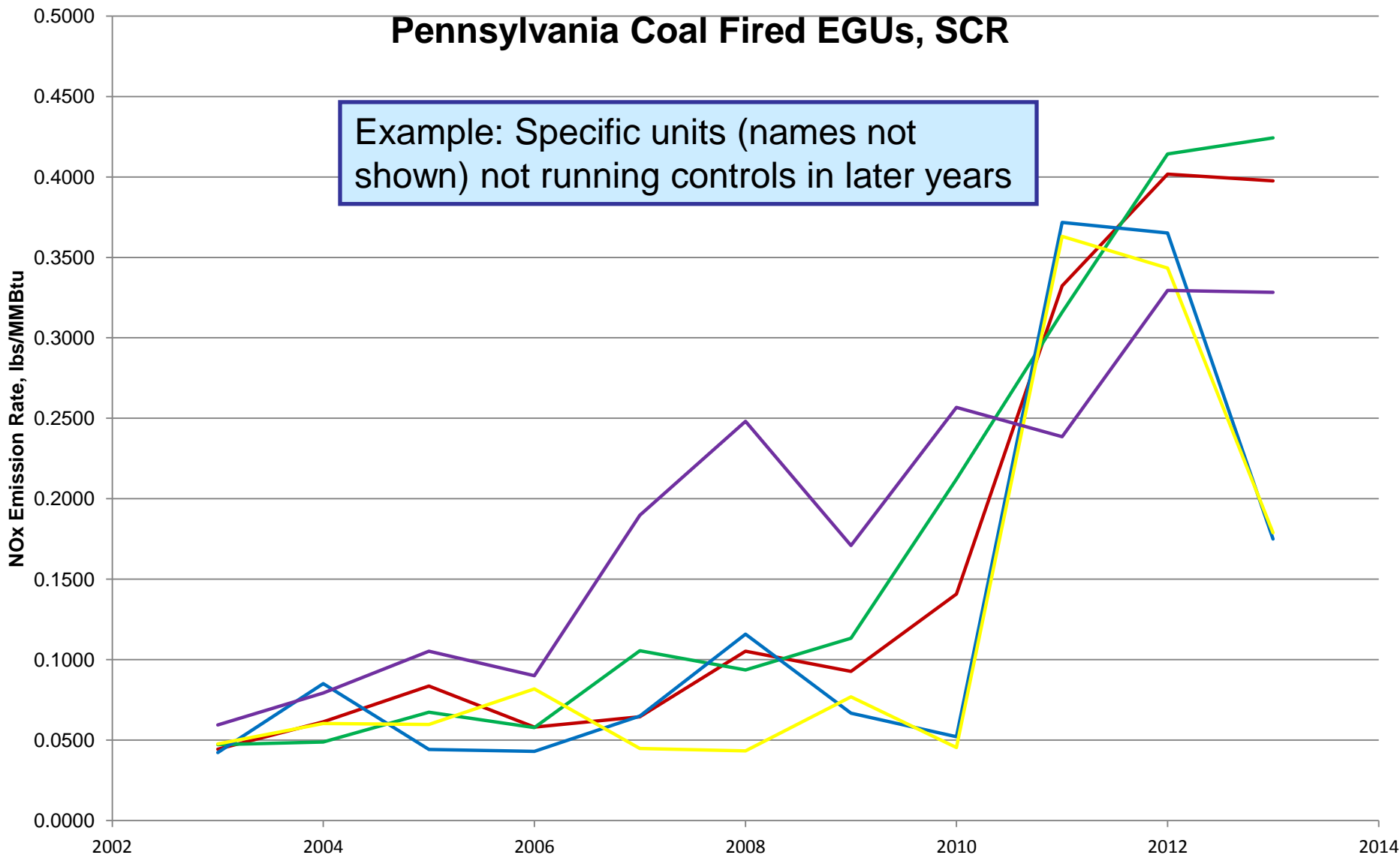
Thank you for your attention to these concerns. Connecticut will be proposing a State Implementation Plan for RACT under the 2008 ozone NAAQS in the coming months, and we will follow quickly to begin rule development for major sources of NO<sub>x</sub>, consistent with the goals stated in the RACT State Implementation Plan. We welcome the Board and PADEP's scrutiny and input to those processes to help us develop effective approaches to meet our common clean air goals.

Sincerely,



Robert J. Klee  
Commissioner

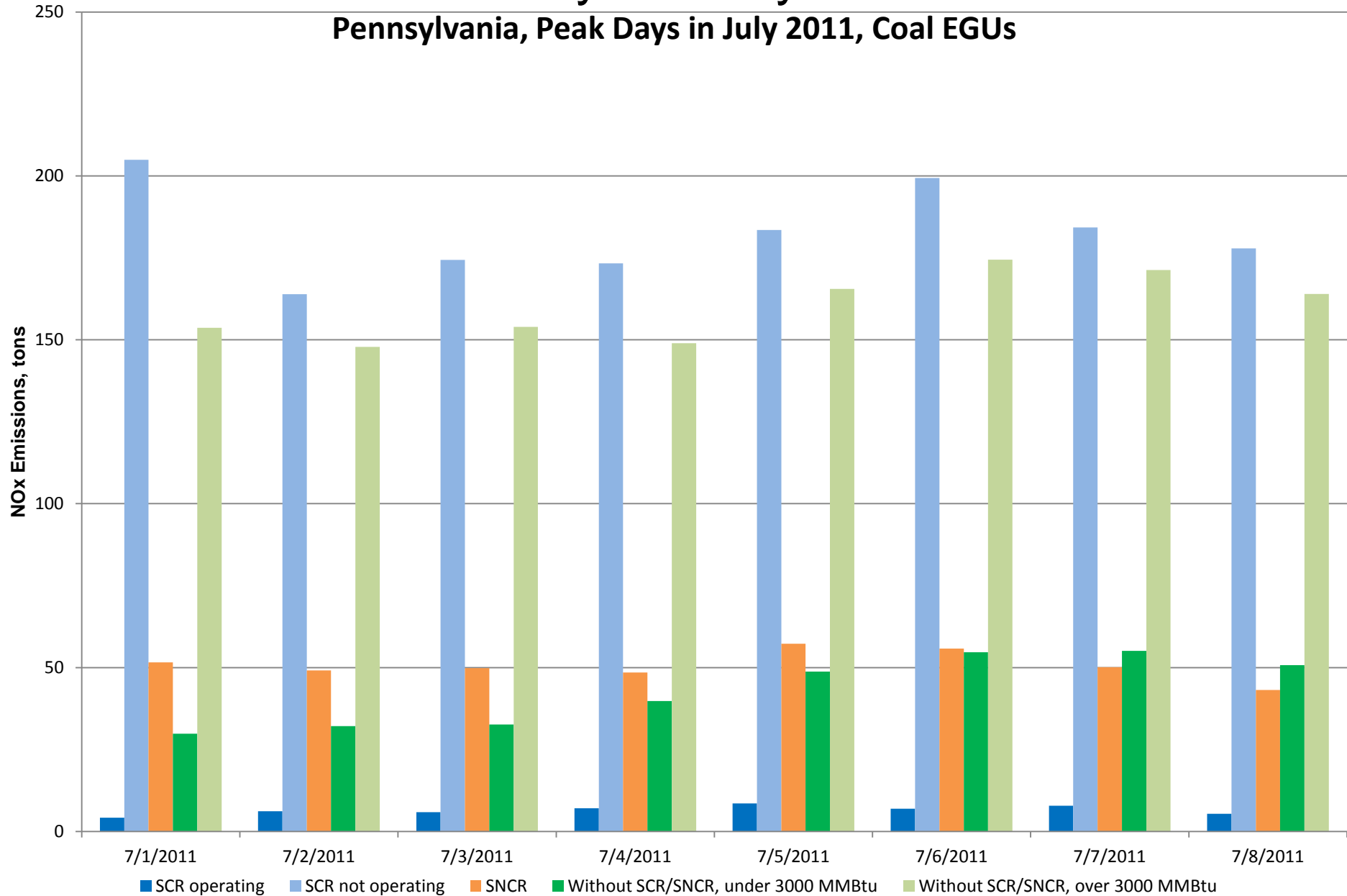
# Average Ozone Season Emission Rates at Specific Units by Year



Example: Specific units (names not shown) not running controls in later years

# PA - Tons Per Day NOx By Control Status

Pennsylvania, Peak Days in July 2011, Coal EGUs



DRAFT – April 2, 2014 – Requesting QA of data. For discussion purposes only.