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13 April 2018

Cristina Fernandez, Director
Air Protection Division
Environmental Protection Agency Region III
1650 Arch Street
Philadelphia, PA 19103-2029
Docket ID No. EPA-R03-OAR-2017-0290
www.regulations.gov

Re: Approval and Promulgation of Air Quality Implementation Plans; Pennsylvania; Regulatory Amendments Addressing Reasonably Available Control Technology (RACT) Requirements Under the 1997 and 2008 8-Hour Ozone National Ambient Air Quality Standards, 83 Fed. Reg. 11155 (14 March 2018)

Dear Ms. Fernandez:

The Connecticut Department of Energy and Environmental Protection (DEEP) appreciates the opportunity to comment on the proposed approval of the Pennsylvania Department of Environmental Protection's (PADEP's) State Implementation Plan (SIP) revision as satisfying the reasonably available control technology (RACT) requirements for the 1997 and 2008 ozone national ambient air quality standards (NAAQS). Ozone levels that exceed the NAAQS are now and have been for many years Connecticut's primary air issue. Connecticut's ozone problem is the result of transported ozone and ozone precursors from upwind states. Properly established RACT limitations in upwind states are extremely important to Connecticut's attainment of the 2008 and 2015 ozone NAAQS.¹ The U.S. Environmental Protection Agency's (EPA's) review of Pennsylvania's and other upwind states RACT SIPs must be uniformly more rigorous as RACT is an underutilized tool by which EPA may address upwind state emissions.²

DEEP acknowledges that PADEP's RACT II rule and other efforts by PADEP and EPA have resulted in significant reductions in ozone precursor emissions in Pennsylvania. Such reductions will assist Connecticut in attaining the 2008 and 2015 ozone NAAQS. However, the RACT II rule is not sufficient as RACT. EPA proposes to approve the SIP revision even though the PADEP RACT II rule includes nitrogen oxides (NOx) emission limits that are not necessarily established at an appropriate level or averaging time.

For example, the limits for municipal waste combustors (MWCs) are not set at a level that represents RACT. For MWCs, PADEP established a single NOx limit of 180 ppmvd for all combustor

¹ Connecticut was originally designated marginal for the 2008 ozone NAAQS. Connecticut's nonattainment areas were reclassified to moderate and are likely faced with another reclassification to serious. Connecticut has not attained due to overwhelming transport from Pennsylvania and other upwind states.

² In making this statement, DEEP is not suggesting that a state's RACT limits should be set at a level to limit transport or address attainment problems in a downwind state. Rather, properly established RACT limits in upwind states will reduce ozone precursor emissions, which will reduce transport.

technologies.³ EPA, in its emission guidelines and new source performance standards for MWCs, and most state regulations for MWCs, apply specific NOx limits to specific combustor technologies, in recognition of the wide variation in uncontrolled NOx limits of the various combustor types. PADEP's inventory of large MWC units is comprised of mass burn waterwall, rotary waterwall and reciprocating grate waterwall units. Selective non-catalytic reduction (SNCR) is in widespread use to control NOx from a number of MWC combustor types, and SNCR is installed on 8 of the 11 Pennsylvania units. At least for mass burn waterwall units controlled with SNCR, a limit of 180 ppmvd is not a RACT level of control as it is demonstrated in other states to be 150 ppmvd. Connecticut adopted NOx emission limits for mass burn waterwall units of 150 ppmvd on August 2, 2016.⁴ While Connecticut's rule was adopted too late to establish RACT for Pennsylvania, the information on which Connecticut based its determination was available during the time period that PADEP was performing its RACT analysis for the 2008 ozone NAAQS. In particular, the New Jersey Department of Environmental Protection (NJDEP) had adopted a NOx emission limit of 150 ppmvd for all MWC unit types with a compliance date of July 18, 2009 for a unit optimizing existing controls and May 1, 2011 for a new unit or the addition of controls to an existing unit.⁵

PADEP and EPA overlooked NJDEP's rule in developing and proposing to approve the RACT II MWC emission limit of 180 ppmvd. However, the limit of 150 ppmvd is technologically and economically feasible for mass burn waterwall units, which is why Connecticut adopted such a limit.⁶ Should PADEP have adopted the 150 ppmvd limit as RACT for the mass burn waterwall units in its MWC inventory, PADEP would create a reduction in NOx emissions and likely reduce ozone transport given that these units typically operate close to 8760 hours per year. DEEP is disappointed that EPA did not recognize that more stringent NOx limits for the mass burn waterwall units in Pennsylvania are appropriate and feasible.⁷

There are other examples of NOx emission limits proposed to be approved by EPA that arguably do not reflect RACT during the time that the RACT II rule was developed. For example, PADEP's NOx emission limits for coal-fired combustion units with a rated heat input of 250 MMBtu/hr or more are high.⁸ New York similarly categorizes coal-fired units by size without separating electric generating units from industrial boilers, yet the New York limits are set at a lower level and with a shorter averaging time. Also, PADEP's limits for simple-cycle oil-fired turbines are high, at 150 and 96 ppmvd, depending on the size of the unit. In addition, the limits for stationary internal combustion engines are higher than those of any other state in the OTC. In its Appendix B to the Technical Support Document for this proposed approval, EPA summarizes the levels of NOx emission limits in RACT rules approved for New York, Connecticut, New Jersey and Delaware for comparison with those of Pennsylvania's RACT II to determine if the RACT II limits represent a RACT level of control. However, some of the summarized emission limits for Connecticut are misleading. EPA

³ 25 Pa. Code 129.97(f).

⁴ See section 22a-174-38 of the Regulations of Connecticut State Agencies (RCSA).

⁵ N.J.A.C. 7:27-19.2.

⁶ As EPA writes in its Technical Support Document (TSD) for this docket, "EPA generally considers controls achieved in practice by other similar existing sources to be technically and economically feasible." TSD at 15.

⁷ The units at the Susquehanna Resource facility are now subject to a NOx standard of 150 ppmvd, demonstrating that the 150 ppmvd limit is feasible for MWC units in Pennsylvania. Furthermore, all the Pennsylvania mass burn waterwall units have SNCR installed, so optimization to meet a 150 ppmvd limit is likely economically and technically feasible for the units at other facilities.

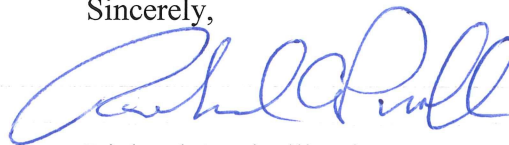
⁸ Coal-fired units are responsible for the majority of Pennsylvania's 2017 AMPD EGU emissions, so the level of the RACT emission limit for these units is important. So much so that DEEP has also addressed PADEP's regulation of NOx emissions from certain large coal-fired boilers through a petition under CAA section 126. See, Docket ID No. EPA-HQ-OAR-2016-0347 at www.regulations.gov.

references the RACT SIP for the 2008 ozone NAAQS submitted by Connecticut and section 22a-174-22 of the Regulations of Connecticut State Agencies (RCSA) as a source of Connecticut's summarized limits. However, in its RACT SIP, DEEP indicated that a number of the emission limits in RCSA section 22a-174-22 do not represent RACT for the 2008 ozone NAAQS, which is why Connecticut adopted the phased limits of RCSA section 22a-174-22e.⁹ Nonetheless, EPA used some of the no-longer-RACT limits of section 22a-174-22 for comparison with RACT II, to PADEP's favor. Given some of the flaws in EPA's summary of the Connecticut limits, it calls into question the accuracy of the summary for other states and the conclusions drawn from the summary.

Furthermore, in comparing PADEP's RACT II limits to those of other states, EPA only examined the level of the compared NOx limits, completely ignoring the averaging time. The averaging time is critical in evaluating the stringency of any emission limitation or making a comparison among limits. Pennsylvania's RACT II rule imposes a 30-day averaging period on the emission limits for all sources with the exception of the MWC category for which compliance is determined on a 24-hour basis. Although EPA's RACT guidance allows for RACT limits to be imposed on a 30-day average basis, such an approach is unacceptably lenient for NOx, particularly given that most states in the Ozone Transport Region (OTR) determine compliance with NOx RACT emission limits on a 24-hour basis in recognition of the persistent ozone nonattainment issues in the OTR.¹⁰ EPA has failed to consider averaging times in its comparison of the Pennsylvania RACT II emission limits to those in other states,¹¹ and had it so done, the conclusions would have been significantly altered. EPA must consider the level and the averaging time as a whole in comparing the stringency of PADEP's emission limits to those of other states.

RACT is a critically important control program. RACT submissions must be subjected to a higher level of scrutiny by EPA. States should be assured that EPA's reviews will be performed consistently and at the same high level of stringency for each state and in each EPA region. Such attention by EPA will result in cleaner air for everyone's health and enjoyment.

Sincerely,



Richard A. Pirolli, Director
Planning and Standards Division
Bureau of Air Management

cc: David B. Conroy, Chief, Air Programs Branch, EPA Region 1
Krishnan Ramamurthy, Director, Bureau of Air Quality, PADEP

⁹ RCSA section 22a-174-22 is repealed as of June 1, 2018. While the limits in RCSA section 22a-174-22 were in effect on January 1, 2017, given the documentation prepared by DEEP indicating that some limits of RCSA section 22a-174-22 were not RACT for the 2008 ozone NAAQS, it is misleading of EPA to rely on those limits in determining the sufficiency of PADEP's RACT II.

¹⁰ See, e.g., Principle #4, Statement of Reasonably Available Control Technology Principles, OTC, June 11, 2014. Principle 4 states that "averaging times for a RACT-based emission limitation should be as short as practicably consistent with the ozone standard and characteristic operation of the source category." Notably, PADEP abstained from adopting this Statement.

¹¹ See TSD, Appendix B, Comparison NOx State Regulations for Sources Covered by Pennsylvania's Presumptive RACT.