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U.S. Environmental Protection Agency
Docket ID No. EPA-HQ-OAR-2016-0347

RE: EPA Response to June 1, 2016 Clean Air Act Section 126(b) Petition from Connecticut

Dear Administrator Pruitt:

The Connecticut Department of Energy and Environmental Protection (DEEP) welcomes the opportunity to comment on the United States Environmental Protection Agency's (EPA's) proposed action on Connecticut's petition pursuant to section 126(b) of the Clean Air Act (CAA) for EPA to make a finding that Brunner Island Steam Electric Station emits, or would emit, ozone precursors in violation of CAA sections 126 and 110(a)(2)(D)(i), the "Good Neighbor" provision. EPA published its proposed denial of the petition on February 22, 2018. 83 Fed. Reg. 7710.

The petition demonstrated that Brunner Island contributes significantly to Connecticut's nonattainment of the ozone standard. The facility burned coal exclusively until last year, and it remains capable and legally permitted to fire coal, notwithstanding having recently installed the capacity to fire natural gas as well. As set forth in the petition, and as demonstrated by the plant's recent modifications, Brunner Island can cost-effectively and immediately abate its significant contribution to ozone standard nonattainment in Connecticut. EPA should ensure that the potential reductions in emissions that would come from Brunner Island's firing natural gas actually occur by issuing an enforceable order to that effect, consistent with Connecticut's petition, in satisfaction of EPA's statutory obligations under the CAA.

EPA's speculative belief about what Brunner Island will do, absent the finding sought in the petition, is not a permissible substitute for regulation. It is inappropriate to deny Connecticut's well-founded petition in reliance upon a single ozone season of voluntarily-reduced emissions by the plant while the petition was pending, without any enforceable mechanism to guarantee continuance of those changes. The proposed consent decree between plant owner Talen Energy and the Sierra Club, if approved by the court, would permit Brunner Island to continue to burn coal during the summer ozone season until 2023, and during the rest of the year until 2028, and thus does not provide relief to Connecticut in the interim nor obviate the need for EPA to make the finding requested in Connecticut's section 126 petition.

We look forward to your response to the attached more detailed comments as we continue our efforts to achieve attainment of the ozone standards and seek a remedy for the excessive interstate transport that imposes substantial health and economic burdens on our state. We also fully endorse the comments submitted by NESCAUM, and adopt and incorporate them by reference herein. Please contact Mr. Richard Pirolli, Director of Air Planning and Standards Division, at (860) 424-3450 with any questions.

Sincerely,


Robert E. Kaliszewski
Deputy Commissioner

REK:RAP:jad

Cc: Alexandra Dunn / EPA Region 1

Encl: Attachment A, Comments on Proposed Denial of Section 126 Petition

1. EPA's CSAPR Update and PA's RACT II Rule do not include necessary enforceable daily NOx emission limits for the Brunner Island facility.

In the proposed action on Connecticut's petition, EPA asserts that the CSAPR Update program and recent changes to Brunner Island operational patterns after the installation of natural gas capability are sufficient to conclude no further action is required to ensure the facility is compliant with CAA section 126 requirements. EPA states (83 FR 7717) that:

“Brunner Island primarily burned natural gas with a low NOx emission rate in the 2017 ozone season and the EPA expects the facility to continue to operate primarily by burning natural gas in future ozone seasons. As such, the EPA does not find at this time that there are additional feasible and highly cost-effective NOx emission reductions available at Brunner Island. The EPA is therefore proposing to determine, based on this context, that Brunner Island does not and would not “emit” in violation of the good neighbor provision with respect to the 2008 ozone NAAQS.” EPA also asserts (83 FR 7717) that “Brunner Island's participation in the CSAPR NOx ozone season Group 2 allowance trading program provides an economic incentive to produce electricity in ways that lower ozone-season NOx, such as by burning natural gas relative to burning coal at this particular power plant.”

The CSAPR Update rule is a multiple-state, regional program that is enforced on a seasonal basis, with no daily restrictions on emissions. Likewise, Pennsylvania's recently implemented RACT II rule does not provide enforceability on a daily basis because emission limits are based on a 30-day rolling average. As applied to the Brunner Island facility, the PA RACT II rule establishes a 30-day averaged 0.35 lb/MMBtu NOx limit when burning coal and a 0.10 lb/MMBtu NOx limit while burning natural gas. The rule does not place any limits on when or how often either coal or natural gas can be used at the facility.

The absence of daily emission limits in both EPA's and PA's programs leaves open the possibility that one or more units at the facility may burn coal on days that downwind Connecticut monitors record ozone exceedances. For example, on June 13, 2017, Connecticut recorded ozone exceedances at four coastal monitors, with a maximum 8-hour value of 95 ppb at the Madison monitor. Based on a review of EPA CAMD AMPD data, both Units 1 and 2 at Brunner Island appear to have been fueled with coal on that day with daily average NOx emission rates of 0.26 lb/MMBtu, more than 150% higher than PA's natural gas RACT II limit of 0.10 lb/MMbtu. Overall, there were in excess of 900 unit hours during the 2017 ozone season (May 1 – Sept 30) when one or more of the 3 units at the Brunner Island facility exceeded the 0.10 lb/MMbtu natural gas limit. Henry Hub natural gas prices during that period were in the mid-range of prices compared to the previous five summers.

EPA's contends that natural gas prices will remain fairly stable through at least 2023 (83 FR 7717); thus, EPA expects that Brunner Island will continue to “primarily” burn natural gas. Even if that is true, based on 2017 operations, the facility will also likely continue to use coal during a significant portion of the ozone season. Since compliance with the ozone NAAQS is determined at each monitor based on the four highest daily monitored values each season, even a single extra exceedance day in Connecticut that is linked to coal use at Brunner Island may be the deciding factor on when or whether Connecticut reaches compliance with the 2008 ozone

NAAQS. Furthermore, EPA's expectations regarding Brunner Island's future operations are only conjecture and do not satisfy the strict emission prohibition of CAA section 110(a)(2)(D)(i)(I), which is linked directly to CAA section 126(b). That requirement can only be satisfied if EPA grants Connecticut's petition and establishes enforceable hourly/daily NO_x emission limits for the Brunner Island facility that are consistent with the use of natural gas during the entire ozone season. Since natural gas supply is already available at the facility, such a requirement could be implemented immediately, and with minimal incremental cost, if any.

2. EPA's reliance on 2023 modeling is not appropriate for evaluating CT's CAA section 126(b) petition.

EPA supports its proposed decision to deny Connecticut's petition by citing modeling it recently completed that "indicates that no air quality monitors in Connecticut are projected to have nonattainment or maintenance problems with respect to the 2008 ozone NAAQS by 2023." EPA maintains the results of this modeling suggest that, by 2023, "it may no longer be necessary to further reduce emissions from any state to ensure attainment of the 2008 ozone NAAQS in Connecticut."

CT DEEP takes issue with both the accuracy of this modeling and the relevance of the 2023 results in relation to the CAA-required timeline for emission reductions required pursuant to CAA section 126(b). EPA's most recent modeling projects that maximum 2023 design values in Connecticut will be 75.9 ppb in 2023, only 0.1 ppb less than the 76 ppb violation level for the 2008 ozone NAAQS and well above the 71 ppb violation level for the 2015 standard. CT DEEP previously submitted comments raising concerns about the over-optimism of future year projections based on EPA's 2011 modeling platform, citing modeling projections that under predict actual 2017 measured design values by more than 5 ppb at key Connecticut monitors. Many of those same concerns remain valid regarding EPA's most recent modeling for 2023. EPA even acknowledges in a footnote in the proposed decision that this recent modeling it relies on has not been formally promulgated or subject to comment and has expressly disclaimed wanting comment on the validity of that modeling.

Notwithstanding the accuracy of EPA's modeling platform, modeled results for 2023 are irrelevant in the context of the mandatory timeline for achieving emission reductions related to Connecticut's CAA section 126(b) petition. Meanwhile, there is a continuing lack of compliance by upwind states and EPA with respect to CAA section 110(a)(2)(D)(i)(I) "good neighbor" requirements.

Based on the promulgation date of the 2008 ozone NAAQS, states were required to submit "good neighbor" SIPs by March 2011. Many states, including Pennsylvania, have yet to submit approvable SIPs. The lack of timely action by upwind states and EPA to address their ozone transport obligations resulted in the failure of both of Connecticut's nonattainment areas to achieve attainment by the marginal deadline of July 2015, triggering bump-up to a moderate classification. Continued incomplete action on transport will soon result in a further bump-up of Connecticut's nonattainment areas to a serious classification, which requires measured attainment by the end of the 2020 ozone season. These multiple bump-ups place an unfair

economic and health burden on Connecticut without similar consequences for the offending upwind states.

In light of the failures to fully address the ozone transport problem in a timely manner through the good neighbor SIP process, Connecticut filed its CAA section 126(b) petition regarding the Brunner Island facility on June 1, 2016. EPA subsequently invoked CAA section 307(d)(10) to extend the deadline for EPA to act on the petition to January 25, 2017. If EPA had taken positive action on the petition by that deadline, CAA section 126(c) would then have established a maximum 3-year period for the source to follow an EPA-established compliance schedule to bring about compliance – in this case by January 25, 2020. Based on EPA’s optimistic modeling, which barely projects attainment in Connecticut in 2023, it can be readily inferred that Connecticut will still be in violation of the 2008 NAAQS as of the January 2020 compliance deadline under CAA section 126(c), emphasizing the need for further enforceable action on the Brunner Island facility.

The evidence submitted by Connecticut with the petition and in these comments makes a compelling case for EPA to enforceably require the Brunner Island facility to reduce NO_x emissions to a level equivalent to operation on natural gas whenever the facility operates during the ozone season. As EPA points out, with the recent voluntary installation by Brunner Island of the infrastructure necessary to supply natural gas, the facility is already “primarily” using natural gas during the ozone season. Therefore, extending the use of natural gas to all operations during the ozone season could easily be implemented immediately, with little or no added cost to the facility owners. Given that monitored compliance with the ozone NAAQS is based on data gathered over a 3-year period, implementation by the 2018 ozone season would help Connecticut in its efforts to secure attainment by the required attainment date for serious areas. Delaying implementation to 2020, or to the 2023 scenario modeled by EPA, would put Connecticut at risk for an additional bump up to the severe classification, with unwarranted additional economic and health risks inflicted on its citizens.

3. EPA’s incorrectly interprets “contribute significantly” in CAA section 126.

EPA’s rationale for the denial is based on its interpretation of terms used in the Good Neighbor provision [CAA section 110(a)(2)(D)]. EPA’s decision is based largely on the meaning it ascribes to “contribute significantly” in CAA section 110. EPA should not apply the interpretation of “contribute significantly” under the Supreme Court’s decision on the Transport Rule (also referred to as CSAPR) [76 FR 48207] in *EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584 (Homer City) to a single stationary source. Homer City established a process to define a state’s contribution to nonattainment in another state. It did not establish a process to define a source or group of sources contribution to nonattainment in another state. EPA incorrectly applies the term “contribute significantly” in CAA section 126.

EPA believes it is appropriate to interpret the term “contribute significantly” using the same two-step process that was deemed permissible under the Homer City decision. Under this two-step process a state is “linked” to another state if it contributed one percent or more to the standard in another state. Under step two, the cost for eliminating a contribution must be “highly cost effective” or it will not be considered to contribute significantly.

Homer City was a decision regarding the validity of a federal implementation plan (FIP) imposed by EPA upon *states* that had failed to provide approvable Good Neighbor state implementation plans (SIPs) under CAA section 110(a)(2)(D). Homer City validated EPA's approach in the Transport Rule to *allocate amongst states* an efficient and equitable remedy to air pollution transport in an instance where states failed to timely submit approvable Good Neighbor SIPs. Nothing in the ruling required EPA to apply this method beyond the Transport Rule and it should not apply here.

Furthermore, CAA section 126 applies only to stationary sources, either individually or grouped, whereas EPA in preparing FIPs has focused broadly on the collective emissions from each state.

EPA, however, attempts to take the two-step process permissible for allocating significant contribution amongst states (per the Homer City ruling) and apply it under CAA section 126 to the determination of significant contribution by a source within a state. EPA does this without adjusting the threshold in step one to establish linkage. Thus, as EPA proposes here for a CAA section 126 petition, a single source within a state would only be considered significant if it contributed one percent or more of the standard, as much as an entire state. Yet under a FIP, an individual source is aggregated with other sources within the state, and having itself contributed far less than the linkage level of one percent, is subject to consideration for control. It is inconsistent to allow a large contributor to be eliminated in step 1 for the purposes a CAA section 126 petition, whereas a much smaller source is included for consideration of controls under a federal plan following Homer City.

There is a clear inconsistency in applying the same significance level to the impacts from an entire state as to impacts from an individual source. The Homer City process was used to establish linkage between states and nonattainment receptors; no method was established to link individual sources to nonattainment receptors. The process used in Homer City is not applicable to a CAA section 126 petition.

4. EPA inconsistently applies the meaning of “contribute significantly” within CAA section 126.

In the proposed petition denial, EPA emphasizes that it “interprets significant contribution to nonattainment and interference with maintenance to mean the same thing under both provisions” (i.e., CAA sections 110(a)(2)(D)(i)(I) and 126(b)). However, EPA does not address the need to be consistent with the use of “significantly contribute” in section 126(a).

CAA section 126(a)(1) requires states to notify nearby states of new or modified sources which may “significantly contribute” to an exceedance of a standard or cause significant deterioration to air quality. CAA section 126(a)(2) applies similarly to existing major sources. EPA has already tied 126(a) to 110 in defining this significant contribution in 40 CFR 51.165(b)(1) and (2):

(b)(1) Each plan shall include a preconstruction review permit program or its equivalent to **satisfy the requirements of section 110(a)(2)(D)(i) of the Act** [*emphasis added*] for any new major stationary source or major modification as defined in paragraphs (a)(1) (iv) and (v) of this

section. Such a program shall apply to any such source or modification that would locate in any area designated as attainment or unclassifiable for any national ambient air quality standard pursuant to section 107 of the Act, when it would cause or contribute to a violation of any national ambient air quality standard.

(2) A major source or major modification will be considered to cause or contribute to a violation of a national ambient air quality standard when such source or modification would, at a minimum, exceed the following significance levels at any locality that does not or would not meet the applicable national standard...

Thus, under CAA sections 126(a) and 110, EPA has already determined that a source is necessarily a significant contributor when its contribution is above a specified level – a one step process that does not rely on cost as a means to eliminate a source from being deemed significant. EPA’s proposed two-step process for determining a significant contribution for a CAA section 126 petition is not consistent with EPA’s regulations already established for CAA section 126(a) and 110.

5. EPA’s misinterpretation of “emits or would emit.”

EPA’s rationale for the denial is based on its interpretation of terms used in the Good Neighbor provision [CAA section 110(a)(2)(D)]. EPA’s decision is based largely on the meaning it ascribes to “emits or would emit” in CAA section 126. EPA cannot interpret “emits or would emit” to mean “emits and would emit”. A petition under CAA section 126 need not demonstrate both conditions -- either is sufficient and they are separable.

EPA explains its interpretation of “emits or would emit” on page 7717 of the proposed denial:

... EPA is proposing to interpret the phrase “emits or would emit” in this context to mean, first, that a source may “emit” in violation of the good neighbor provision if, based on current emission levels, the upwind state contributes to downwind air quality problems and the source may be further controlled through implementation of highly cost-effective controls; and, second, that a source “would emit” in violation of the good neighbor provision if, based on reasonably anticipated future emission levels (accounting for existing conditions), the upwind state contributes to downwind air quality problems and the source could be further controlled through implementation of highly cost-effective control.

...

Consistent with this interpretation, the EPA has therefore evaluated whether Brunner Island emits or would emit in violation of the good neighbor provision based on both current and future anticipated emission levels.

EPA must further conclude that Brunner Island would emit in violation of the good neighbor provision as it is reasonable to expect that the facility which retains the means to fire coal does so with the intention of firing coal in the future. In fact, Brunner Island has fired coal even while it had the option of firing natural gas, as was discussed in Comment 1.

Given that EPA has delayed its implementation of Good Neighbor provisions, and that CAA section 110 provisions are expected to be satisfied prior to the earliest attainment deadline for any significantly impacted downwind state, EPA should also consider what a source did emit. It is relevant that a source did emit so as to significantly contribute to a state being designated nonattainment and did emit while the state remains nonattainment beyond its expected attainment date.

EPA goes on to state on page 7712 of the proposed denial:

Thus, in interpreting the phrase “emits or would emit in violation of the prohibition of section [110(a)(2)(D)(i)],” if the EPA or a state has adopted provisions that eliminate the significant contribution to nonattainment or interference with maintenance in downwind states, then there simply is no violation of the CAA section 110(a)(2)(D)(i)(I) prohibition.

However, neither EPA nor the state adopted provisions to eliminate the significant contribution of Brunner Island’s coal fired operations to Connecticut’s ongoing nonattainment problem. Therefore, EPA cannot conclude that Brunner Island does not violate the Good Neighbor provision.

6. CAA section 126 does not require a petitioner to assure that sources avoid over-control.

At page 7718 of the proposed denial EPA states:

Connecticut has not attempted to evaluate what reductions in ozone would accrue from these additional control strategies and thus has not demonstrated that the additional costs associated with these controls would be justified by the downwind reductions in ozone. Indeed, the petition includes no analysis of how downwind air quality would be impacted by the emission reductions it contends are necessary under the good neighbor provision. This element is not only key to EPA’s interpretation of the good neighbor provision as it applies step three to ozone pollution transport, but necessary to ensure that upwind emissions are not reduced by more than necessary to improve downwind air quality, consistent with the Supreme Court’s holding in *EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. at 1604 n.18, 1608–09.

CAA section 126 does not require a petitioner to assure that sources avoid over-control. Regardless, over-control is not at issue here. Consistent with *Homer City*, over-control becomes an issue only when all downwind states are in attainment.

In fact, *Homer City* points out that the EPA has a statutory obligation to avoid under-control and to maximize achievement of attainment downwind. “The Good Neighbor Provision requires EPA to seek downwind attainment of NAAQS notwithstanding the uncertainties. Hence some amount of over-control ... would not be surprising.”¹ In proposing to deny this petition EPA attempts not only to absolve itself of its responsibilities but also to foist them onto the downwind states.

EPA claims that Connecticut’s failure to address step 3 of EPA’s four-step process for historically approaching transport is problematic for EPA. EPA describes the full four-step process on pages 7713 to 7714 of the proposed denial. Step 3 mentions only state-wide emissions and is not relevant to a petition regarding an individual source.

Nevertheless, approximately 12 percent of monitored nonattainment in Connecticut can be attributed to the State of Pennsylvania.² This is well beyond the linkage threshold EPA established for a state. EPA’s exaggerated concern for over-control within the four-step process results in the absurd outcome that upwind states are held harmless when contributing even multiple times what Connecticut contributes to its own nonattainment.

¹ *EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584 (2014) p. 30-31

² Connecticut’s attainment demonstration for the 2008 ozone standard showed that Connecticut could not attain the standard even if it had eliminated its own contribution to nonattainment in its entirety. For Pennsylvania’s contribution to Connecticut’s nonattainment see figure 9-2 in chapter 9 of the attainment demonstration <http://www.ct.gov/deep/lib/deep/air/ozone/ozoneplanningefforts/SouthwestConnecticutAttainmentSIPFINAL.pdf>