UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
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OFFICE OF THE
REGIONAL ADMINISTRATOR

November 27, 2023

Katie S. Dykes, Commissioner
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Dear Commissioner Dykes:

Over the past several months, our staff have discussed Connecticut Department of Energy and Environmental Protection's (CT DEEP's) current and future air quality strategies to address the ground level ozone pollution problem in Connecticut. This letter underscores the need for Connecticut to consider further mobile source emission reductions, which are the largest NOx emitting sector in the state, and a strengthening of the NOx emissions limits for municipal waste combustors (MWCs) given their status as the largest stationary source sector of emissions in the state.

As you know, ozone monitors in Connecticut have recorded the highest ozone levels in the Eastern U.S. over the past few summers, despite the state's significant efforts to reduce the air pollutants that cause this problem. There are numerous types of mobile, industrial, commercial, and area sources from both local and upwind states that contribute to this problem. Emission reductions from both within the New York-New Jersey-Connecticut multi-state ozone nonattainment area and from upwind states will be necessary to reduce these unhealthy levels of air pollution in Connecticut.

Connecticut has made great progress in reducing ozone levels since the federal Clean Air Act (CAA) was amended in 1990. However, as you know, EPA lowered the national ambient air quality standards for ozone in 2008 from 84 to 75 parts per billion (ppb) and in 2015 to 70 ppb. Many parts of Connecticut still exceed both standards. Recent air quality monitoring data for 2020 through 2022 indicate that the multi-state, New York–New Jersey–Connecticut ozone nonattainment area has a design value of 81 ppb, which is substantially above both the 2008 and 2015 ozone standards. Given the large number of pollution control measures that the states and EPA have already adopted to meet the earlier ozone standards, it has become increasingly challenging to develop regulations to further reduce the ozone precursor emissions, nitrogen oxides (NOx) and volatile organic compounds. Although we recognize that Connecticut has already made significant progress in reducing emissions, it

will be critical for the state to continue its efforts both individually and as an active member of the multi-state nonattainment area Ozone Transport Commission, with New York and New Jersey.

Connecticut and its neighboring states must adopt emission control measures that will, in conjunction with emission reductions from upwind states, enable the area to meet EPA's most recent ozone standard of 70 ppb. To help direct these efforts, the CAA requires that states with nonattainment areas submit a number of State Implementation Plan (SIP) revisions, such as reasonable further progress (RFP) plans that provide for annual, incremental emission reductions until the area reaches attainment, along with modeled demonstrations that attainment can be reached by the area's attainment date. As was discussed during the November 2, 2023 meeting between representatives from the air agencies for Connecticut, New York, New Jersey, and EPA, it is evident that more time will be needed for these states to meet the 2015 ozone standard of 70 ppb, perhaps as many as nine additional years. If such an extension to the attainment date occurs, states will need to develop RFP plans that will provide that, on average, ozone precursor emissions are reduced by an average of 3% per year until attainment of the 2015 ozone standard is reached, in addition to demonstrating that an initial 15% emission reduction occurred between the 2017 base year and the end of 2023. Additionally, section 172(c)(1) of the CAA requires states to adopt all reasonably available control measures (RACM) as expeditiously as practicable to meet the ozone standard. In previously issued guidance,[1] EPA suggested that states consider the following in their RACM analysis: *"Sources of potentially reasonable measures include measures adopted in other nonattainment areas and measures that the EPA has identified in guidelines or in other documents."*

As has been done in the past when developing these SIP revisions, CT DEEP should adopt emission reduction strategies that will help reach attainment of the ozone NAAQS. Based on research done under the Long Island Sound Tropospheric Ozone Study, which Connecticut participated in, it is clear that this area of the country will benefit most from emission reductions of NOx. Much of the NY-NJ-CT ozone nonattainment area contains areas with environmental justice concerns, and the LISTOS study revealed larger than expected amounts of NOx emissions both upwind and within the NY-NJ-CT nonattainment area. In addition to leading to the formation of ground level ozone, exposure to high levels of NOx can irritate the airways of the respiratory system, and aggravate exiting respiratory ailments such as asthma. The mobile source sector is the most significant portion of the state's total NOx emissions, split about evenly between diesel-fueled and gasoline-fueled vehicles. Nonroad sources also contribute significantly to Connecticut's NOx emissions inventory. Therefore, NOx emissions reductions from on-road motor vehicles comprise the largest single source category of NOx emissions and could have a significant impact on working towards achieving the ozone standard. If sufficient reductions are not obtained from the mobile source sector, other emission source categories will need to be identified to achieve emission reductions. Connecticut should explore whether air pollution controls at mobile source, commercial, industrial, and institutional facilities beyond what is

[1] See memorandum entitled, "Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas" from John S. Seitz to the EPA Regional Air Division Directors, dated November 30, 1999.

already required would yield meaningful, cost-effective results. Connecticut could also explore voluntarily reducing its threshold for major source controls from 25 to 10 tons per year (as required for ozone nonattainment areas classified as Extreme) which would result in regulating more industrial sources.

Additionally, section 182(j) of the CAA requires that states with multi-state nonattainment areas coordinate their planning and control strategy development for a shared area. As cited in a recent Connecticut report entitled, "An Assessment of Connecticut's Need to Adopt California's Medium and Heavy-Duty Vehicle Emission Standards," Connecticut is considering the adoption of California's emission standards for medium and heavy-duty vehicles. Connecticut could also evaluate the merits of adopting additional mobile source requirements as New York and New Jersey have to achieve NOx emission reductions, including NOx emissions reductions measures that could be implemented for light-duty vehicles. Connecticut should also consider further restrictions on NOx emissions from municipal waste combustors. EPA recommends reviewing a recent Ozone Transport Commission report on reducing NOx from MWCs.[2] This report informed EPA's 2015 ozone NAAQS "Good Neighbor" rule, which as promulgated establishes NOx emissions limitations for MWCs applicable in upwind states. Connecticut should also consider further restrictions on NOx emissions from nonroad engines to the extent allowed under federal law. In addition, EPA is willing to discuss any other measures that the State wants to consider.

Achieving the 2008 and 2015 ozone NAAQS in the nonattainment area that Connecticut shares with New York and New Jersey will be a challenging task requiring emission reductions from both within the area and from upwind states. As promulgated, EPA's March 15, 2023 Good Neighbor rule is designed to restrict NOx emissions from electric utilities and major industrial sources within 12 states upwind of Connecticut which will help reduce the impact of upwind sources on ozone levels in Connecticut. Even as designed, however (and not accounting for preliminary judicial stays), the Good Neighbor rule does not include all measures necessary to reach attainment, but simply prohibits "significant contribution" from upwind states under CAA section 110(a)(2)(D)(i)(I). We recognize that Connecticut has made great strides in reducing ozone precursors from within the state, and many of its existing requirements are a model for other states. Nonetheless, the adoption of additional local control measures in Connecticut, New York, and New Jersey will be essential to bring the area into attainment with the ozone NAAQS. In order to avoid penalties under the CAA, Connecticut has to adopt and implement further emission reductions through the submission of approvable attainment SIPs to EPA by the required deadlines.

[2] See report entitled, "Municipal Waste Combustor Workgroup Report", prepared by the Ozone Transport Commission Stationary and Area Source Committee, revised April, 2022.

We look forward to continuing to work with you to analyze this air quality problem and to develop strategies to address it so that the citizens located in this heavily populated nonattainment area impacted by high ozone levels will have cleaner, healthier air that meets EPA's ozone air quality standard.

Sincerely,

David W. Cash
Regional Administrator
EPA Region 1