UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

January 6, 2022

Kristin Salimeno
Bureau of Air Quality
Connecticut DEEP
79 Elm Street
Hartford, CT 06106-5127

Dear Ms. Salimeno:

Thank you for the opportunity to provide comments on Connecticut's proposed attainment demonstration for the 2008 ozone NAAQS and statewide motor vehicle emissions budgets. We have reviewed Connecticut's proposal and offer the attached comments.

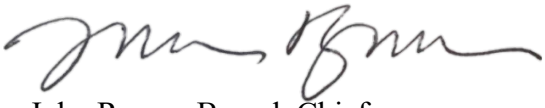
As you know, on August 23, 2019, EPA reclassified the New York-N. New Jersey-Long Island, NY-NJ-CT nonattainment area under the 2008 ozone NAAQS nonattainment from moderate to serious and established an attainment date for the newly classified serious area of July 20, 2021. Based on monitoring data from the area for the years 2018 through 2020, this area will not be able to demonstrate that it has attained the 2008 ozone NAAQS by the July 20, 2021 attainment date, nor will it be able to meet the criteria for a 1-year extension of the attainment date under Clean Air Act section 181(a)(5). We therefore anticipate that this nonattainment area will be reclassified from serious to severe nonattainment and be provided with additional time to meet the 2008 ozone NAAQS.

Through many previous actions over the past several decades, Connecticut has demonstrated its commitment to achieving attainment of the ozone NAAQS, and we encourage Connecticut DEEP to continue to seek ways to reduce ozone precursor emission reductions both within the state and in partnership with New York and New Jersey. The attached comments include a number of suggested emission reductions opportunities that we recommend be evaluated for possible adoption.

Additionally, as indicated within EPA's portion of the "Fall 2021 Unified Agenda of Regulatory and Deregulatory Actions" that is available on the Office of Management and Budget's website, EPA intends to propose a Federal Implementation Plan, which would determine whether and to what extent ozone-precursor emissions reductions are required to eliminate significant contribution or interference with maintenance from upwind states that are linked to air quality problems in other states for the 2015 8-hour ozone NAAQS. For states that EPA determines to be linked to a downwind nonattainment or maintenance receptor, EPA would conduct further analysis to determine what (if any) additional emissions controls are required. We anticipate that emissions reductions achieved by this rule, once finalized, may help Connecticut meet attainment obligations for both the 2008 and 2015 ozone NAAQS.

Please contact me at 617-918-1645 (rogan.john@epa.gov), Bob McConnell at 617-918-1046 (mcconnell.robert@epa.gov), or Ariel Garcia at 617-918-1660 (garcia.ariel@epa.gov) if you would like to discuss or have questions regarding these comments.

Sincerely,



John Rogan, Branch Chief
Air Quality Branch

Comments on Connecticut's Proposed Ozone Attainment Demonstration

1. On August 23, 2019, EPA published a final rule in the Federal Register that included, among other things, a reclassification of the 2008 ozone NAAQS nonattainment area that Connecticut shares with New York and New Jersey (herein referred to as the NY-NJ-CT area) from moderate to serious. That notice established an attainment date for the newly classified serious area of July 20, 2021. Based on monitoring data from the area for the years 2018 through 2020, this area will not be able to demonstrate that it has attained the 2008 ozone NAAQS by the July 20, 2021 attainment date, and we anticipate that the area will be reclassified from serious to severe, with a new attainment date of July 20, 2027. Given this likelihood, we encourage Connecticut to work with New York and New Jersey to identify additional controls strategies that could be adopted to limit ozone precursor emissions by 2023, given this area's 2024 attainment date as a moderate area for the 2015 ozone NAAQS, and by 2026, given the likelihood that the area will have a 2027 attainment date as a severe area for the 2008 ozone NAAQS. We suggest that the following potential additional control measures be considered, and any others identified by the member states of this nonattainment area.

   a. NOx reductions from Municipal Waste Combustors (MWCs): In June of 2021, an OTC workgroup finalized a report indicating that substantial NOx reductions from MWCs are likely available from control technologies currently installed at some facilities that require NOx concentration limits of 105 ppm on a 24-hour basis and 110 ppm on a 30-day basis. Subsequently, the OTC's Commissioners adopted a resolution to develop a recommendation for emission reductions from MWCs during their June 15, 2021 annual public meeting. It appears that NOx emissions from MWCs in Connecticut could be reduced if the limits suggested by the OTC's MWC report were adopted. Given that MWCs are the state's largest point source sector of NOx emissions, Connecticut should explore this possible source of NOx reductions from the state's fleet of MWC facilities.

   b. Reducing VOC emissions from volatile chemical products (VCP): As mentioned on page 11 of Connecticut's proposal, the Long Island Sound Tropospheric Ozone Study revealed important information about ozone formation in the NYC metropolitan area, Long Island Sound, and coastal Connecticut. One area of research involved a data collection and modeling effort that studied the role of emissions of volatile chemical products (VCPs) on ozone formation. The study concluded, among other things, that VCP emissions appear to be significantly underestimated and may play an important role in ozone formation in the area. Connecticut should consider evaluating the merits of adopting control requirements to limit VCPs emissions from products they are typically found in, such as adhesives, coatings, cleaning agents, personal care products, pesticides, and printing inks.

   c. Reducing NOx emissions from marine ports: The NY-NJ-CT ozone nonattainment area is home to several large marine ports where commercial marine vessels (CMVs) dock for loading and unloading purposes. There may be an opportunity to reduce NOx emissions from the diesel-fueled auxiliary engines CMVs typically used while they are docked by following the approach recently taken in California. The

California Air Resources Board's (CARB) Ocean-Going Vessels at Berth Regulation is intended to reduce hoteling (at-berth) emissions of NOx and particulate matter by 80 percent primarily by requiring that CMVs use dock-side electric power in lieu of power from their auxiliary engines, or by using pollution control equipment on their auxiliary engines. There may also be NOx emission reduction opportunities from other sources found at ports, such as the heavy-duty, diesel-fueled drayage trucks that move containers from the port to nearby intermodal distribution centers, and from rail facilities that are commonly situated near ports. EPA has many resources available to assist with performing emission reduction opportunity analyses at ports at the following website: Ports Initiative | US EPA

d. VOC emissions from above ground storage tanks: On June 2, 2021, the Northeast States for Coordinated Air Use Management (NESCAUM) hosted a webinar on recent studies and regulatory efforts concerning emissions from above ground petroleum storage tanks. Presentations were made by several states regarding recent testing and other studies of VOC emissions from this equipment, and of updates made to existing regulations to incorporate state of the art testing and monitoring requirements. Given that Connecticut has several large petroleum storage facilities, CT DEEP should review its regulations for this equipment to determine whether any updates should be made to the state's current emission limits, testing, monitoring and recordkeeping requirements for above ground petroleum storage tanks.

2. As Connecticut notes within its proposal, the state has become a national leader in the development of aggressive policies designed to reduce GHG emissions, and in linking the co-benefits of such programs to the state's efforts to reduce ozone precursor emissions. Programs and policies such as EV Connecticut, the Connecticut Hydrogen and Electric Automobile Purchase Rebate (CHEAPR), and Executive Order No. 3, which seeks to, among other things, eliminate carbon emissions from the electricity sector by 2040, will help create and sustain downward momentum in both GHG and criteria pollutant emissions. Additionally, the state's recently enacted legislation Senate Bill (SB) 952, An Act Concerning Energy Storage, sets aggressive targets for energy storage of 1,000MW by 2030, with interim targets of 300MW by 2024 and 650MW by 2027. It is likely that Connecticut, New York, and New Jersey will need emission reductions from programs targeted directly at reducing ozone precursor emissions and from the co-benefits of GHG focused programs to meet the 2008 and 2015 ozone NAAQS. The current collaborative effort between Connecticut DEEP, Region 1, and EPA's Office of Research and Development to explore the GHG and air quality benefits of economy-wide energy efficiency and renewable energy technologies using the "GLIMPSE"[1] model should be instructive in helping Connecticut forge a path that merges these objectives in efficient program and policy design. We encourage Connecticut to continue its efforts in this regard and offer the following suggestions as possible additional emission reduction opportunities that jointly help mitigate climate change and reduce ozone levels.

   a. Explore the potential benefits of a clean peak energy standard: Although Connecticut implements several programs aimed at reducing peak electricity demand, the state

[1] Global Change Assessment Model (GCAM) Long Term Interactive Multi-Pollutant Scenario Evaluator

should monitor novel legislation recently implemented in Massachusetts that has a similar objective. The Massachusetts Clean Peak Energy Standard became effective on August 7, 2020, and it creates an incentive for new renewable energy and storage projects that can provide electricity to the grid when demand is highest. This is accomplished by the creation of clean energy peak certificates (CPECs) by renewable and energy storage facilities that can then be used to meet CPEC purchase requirements of other electricity suppliers in the state. Reducing NOx emissions on high electricity demand days remains an important challenge that a clean peak energy standard could help address.

b. NOx emission reduction opportunities from old boilers: EPA collected information on boilers, including boiler age, during development of the NESHAP for ICI boilers. An extract of this information for facilities in Connecticut with older boilers is included as attachment 1 to these comments. Connecticut should consider reaching out to these facilities to determine if this equipment is still in place, and if so, provide these facilities with information regarding the energy savings and environmental benefits of replacing older boilers with new equipment. EPA's ENERGY STAR program, specifically ENERGY STAR certified boilers and Industrial Energy Management resources, could be shared with these facilities as means of illustrating these benefits.

3. As noted in comment 1 above, it is apparent that the NY-NJ-CT 2008 ozone NAAQS serious nonattainment area was not able to demonstrate attainment by July of 2021. Connecticut's proposed SIP provides the state-by-state ppb contributions EPA developed in modeling done to support the Revised CSAPR Update transport rule. These values are shown in Table 12-1 of the state's proposal and portray the impact of pollutants from upwind states on ozone levels recorded in Connecticut. Table 12-1 indicates New York and New Jersey are the most significant contributors to ozone recorded by monitors in Connecticut, underscoring the need for continued emission reductions from within the NY-NJ-CT nonattainment area. This table also indicates that emission reductions from many states outside of the NY-NJ-CT area will also be needed to help reduce ozone levels. Connecticut's proposal, however, does not include any modeling results or other analyses indicating the magnitude and geographic location of the ozone precursor emission reductions needed for the area to attain the 2008 ozone NAAQS, nor does it propose a timeline for such reductions to occur. EPA encourages Connecticut to work with New York and New Jersey on air quality modeling analyses that can help ascertain the amount of ozone precursor emission reductions needed both from within and from outside of the nonattainment area, the most efficient mix of VOC and NOx emission reduction percentages, and development of a feasible timeline for such emission reductions to occur. Additionally, as indicated within EPA's portion of the "Fall 2021 Unified Agenda of Regulatory and Deregulatory Actions" that is available on the Office of Management and Budget's website, EPA intends to propose a Federal Implementation Plan, which would determine whether and to what extent ozone-precursor emissions reductions are required to eliminate significant contribution or interference with maintenance from upwind states that are linked to air quality problems in other states for the 2015 8-hour ozone NAAQS. For states that EPA determines to be linked to a

downwind nonattainment or maintenance receptor, EPA would conduct further analysis to determine what (if any) additional emissions controls are required. We anticipate that emissions reductions achieved by this rule, once finalized, may help Connecticut meet attainment obligations for both the 2008 and 2015 ozone NAAQS.

4. CAA section 182(g) requires ozone nonattainment areas classified serious or higher to submit to EPA an RFP milestone compliance demonstration (MCD). Areas classified serious or higher had a January 1, 2021 milestone date for the 2018-2020 RFP increment and a corresponding MCD due date 90 days later. EPA codified MCD regulations in the final implementation rule for the 2015 ozone NAAQS (see 83 FR 63011; 12/6/2018), and we interpret those requirements as being applicable to 2008 ozone NAAQS areas classified as serious or above. EPA does not consider an ozone MCD to be a formal SIP revision subject to CAA public notice-and-comment requirements. Given that Connecticut's RFP plan demonstrates that the RFP milestone covering the years 2018-2020 was met, we suggest that material from the state's proposed RFP plan, in particular the projected, 2020 emissions and 2020 RFP target levels of emissions, be used to satisfy the MCD obligation and include materials within the final RFP plan submittal to EPA documenting this determination.

5. Connecticut's proposal indicates that the state commits to pursue the adoption of contingency measures from the mobile sector, given that sector's significant role in ozone formation in the state. The measures Connecticut identifies and adopts as continency measures should achieve emission reductions that are prospective in nature and adopted by the state with a triggering mechanism dependent upon the notification by EPA that implementation of the contingency measure(s) has been triggered.

6. The OTC's High Electric Demand Day (HEDD) workgroup released a Final Draft Report dated November 10, 2016, that evaluated NOx emissions from small electrical generating units (EGUs) that, due to their size, typically are not required to report their emissions to EPA or to state environmental agencies. One finding of the report was that NOx emissions from such units can be substantial during HEDD events and may not be adequately characterized within the emissions data sets used in ozone modeling exercises. As a potential remedy to address this, Connecticut should evaluate is whether it would be beneficial and feasible to require that small EGUs that do not otherwise report their emissions and temporal use profiles to CT DEEP do so.

7. Connecticut should consider revising its existing case-by-case RACT requirements to include expiration/re-application provisions similar to those New Jersey recently incorporated into N.J.A.C 7:27-19.13 which allows the state to re-evaluate previously issued requirements to discern whether advances in air pollution control technologies not previously available may be appropriate for the source.

8. Minor comments:
   a. Pg. 3 references additional funding for EV's likely from the pending federal infrastructure bill. That bill did become law on November 15, 2021, as the Infrastructure Investment and Jobs Act, Public Law No: 117-58.

b. Pg. 3 notes Connecticut's entry into the Transportation and Climate Initiative in December of 2020, however the state subsequently withdrew from this program.

9. Pg. 16, Table 7-1 "2020 Motor Vehicle Emission Budgets": Connecticut should verify the submitted 2020 budgets listed in this table are correct. Specifically, the listed 2020 VOC budget for Southwest CT of 17.6 tons/day, is identical to the 2017 Southwest CT VOC budget currently in place for transportation conformity purposes. This may have been a typographical error, as we would presume this budget for 2020 should be slightly more stringent than the currently SIP-approved 2017 budget.

Furthermore, in addition to the information included as "Attachment A" of the Draft Serious Area Attainment Demonstration, EPA Region 1 will need to review all documentation (i.e. MOVES Input and Output databases, or at a minimum, spreadsheets containing the MOVES output information) in order to be able to replicate the calculation/interpolation to arrive at the submitted 2020 MVEBs. This documentation should be made available as part of the formal Serious Area Attainment Demonstration SIP submittal.

Attachment 1: Microsoft Excel spreadsheet: CT_Old_Boilers.xlsx