July 11, 2014

VIA ELECTRONIC MAIL

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RE: Comments of the Sierra Club Regarding Connecticut Department of Energy and Environmental Protection Reasonably Available Control Technology Analysis Under the 2008 Ozone National Ambient Air Quality Standard

On behalf of the Sierra Club and its more than 8,000 members in Connecticut, I am submitting the following comments on the Connecticut Department of Energy and Environmental Protection (DEEP) Reasonably Available Control Technology Analysis Under the 2008 Ozone National Ambient Air Quality Standard. The Sierra Club strongly supports DEEP's intention to revise its Reasonably Available Control Technology (RACT) regulations for fuel-burning sources including boilers, turbines, and engines, and urges the Department to do so expeditiously in light of the significant air quality and public health impacts at stake.

In 2013, Connecticut recorded the highest ozone levels on the East coast. Of particular concern, air quality in Connecticut has been declining in recent years. Three monitors are now recording violations of EPA's long-outdated 1997 8-hour ozone NAAQS, and as a result EPA recently rescinded its Clean Data Determination for the Connecticut-New York-New Jersey 1997 8-hour ozone nonattainment area. In addition, all but two ozone monitors in the state recorded ozone levels at or above EPA's soon-to-be-outdated 2008 8-hour ozone NAAQS, indicating that residents statewide are being exposed to unsafe levels of air pollution. Moreover, Connecticut's ozone attainment problems are only going to become more severe when EPA finalizes a new NAAQS next year, likely to be set no higher than 70 parts per billion (ppb) based on the most current science on health impacts. Sierra Club therefore applauds the Department's plan to "take a long view when seeking to adopt RACT emission limitations"[1] in light of the need to comply with the stricter ambient air quality under development.

As recognized by the Department, Connecticut's existing NOx RACT regulations are now significantly outdated. For example, whereas Connecticut's RACT regulations allow coal plants to emit NOx at rates of 0.38 lb/MMBtu during the ozone season, some Ozone Transport Commission (OTC) states have adopted regulations limiting NOx from coal plants to 0.12 lb/MMBtu (New York) and 0.125 lb/MMBtu (Delaware). And states such as Wisconsin have

[1] Connecticut DEEP Draft RACT Analysis for the 2008 8-Hour Ozone NAAQS at 27 [hereinafter "Draft RACT Analysis"].

imposed even stricter requirements on coal plants, requiring NOx rates of 0.10 lb/MMBtu. In addition, Maryland has issued draft NOx RACT regulations that require all units to hit rates consistent with installation and operation of Selective Catalytic Reduction (SCR), the state-of-the-art control technology for NOx. As discussed in greater detail below, NOx RACT regulations for coal plants requiring SCR-level emission reductions are appropriate in light of the legal requirements of RACT and the severity of Connecticut's ozone air quality issues. Indeed, Connecticut is a significant outlier in the Northeast at this point in having a 400 MW coal plant with no add-on controls for NOx. In other Eastern states, most if not all coal units of any size are controlled with SCR, and plants controlled with SCR are routinely achieving NOx emission rates half that of Connecticut's Bridgeport Harbor Station.

Ultimately, requiring meaningful emission reductions from EGUs is a critical part of a broader strategy to bring Connecticut into attainment with EPA's health-protective ozone NAAQS. As the Department recognized in its RACT SIP, "[t]he impact of mobile and area source emissions and pollution transported from other states, on ozone values in Connecticut, cannot be overstated."[2] Connecticut took an important step to address interstate transport issues when Governor Malloy, together with eight Northeastern governors, petitioned EPA in December 2013 pursuant to Section 176A of the Clean Air Act to expand the Ozone Transport Region (OTR) to include nine additional states.[3] One of the key requirements that would be triggered in these upwind states if were included in the OTR is that would be required to establish RACT limits for their large stationary sources. Consequently, to the extent Connecticut seeks to obtain meaningful reductions from large stationary upwind sources through its 176A petition, it must lead by example. Sierra Club looks forward to working with the Department on this process to ensure Connecticut's RACT regulations put the State back on track to protect its citizens from unhealthful ozone pollution.

I. Health Impacts of Ground-level Ozone

The entire state of Connecticut has been designated by EPA as having air quality that is unsafe to breathe. Consequently, all 3.5 million Connecticut residents are exposed to air quality that is known to cause a diversity of adverse health impacts, particularly to the State's most vulnerable populations: children, asthmatics and the elderly.

At levels well below EPA's 2008 75 ppb standard, smog has been shown to cause a wide range of adverse respiratory and cardiovascular effects, especially in children, the elderly and other sensitive populations.[4] Studies have found the threshold for increased pulmonary inflammation (i.e., swollen lungs) for children to be 56.3 ppb, 25% below EPA's current standard, and far below ozone levels in Connecticut.

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[2] Draft RACT Analysis at 7.
[3] *See id.* at 10.
[4] *See generally* U.S. Environmental Protection Agency (2013). Integrated Science Assessment for Ozone and Related Photochemical Oxidants (Final Report). EPA/600/R-10/076F, 2013, available at http://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=247492 [hereinafter "ISA (2013)"].

Smog is a potent asthma trigger, sending kids to the hospital. And there is a strong association between growing up with smog and developing asthma. A California study showed that children who grew up in higher smog areas with median smog levels of 56.9 parts per billion and who exercised heavily developed asthma at a rate three time higher than those in low-ozone communities.[5] Notably, the median smog level in the California study was nearly 25% below EPA's current standard and, again, well below the ozone levels in Connecticut.

Smog is also linked to reproductive impacts. Epidemiological studies show a 26% increase in risk of pre-term birth at maximum smog levels of only 61.1 parts per billion.[6] And exposure to smog leads to premature death. Ozone-induced premature mortality according to numerous multi-city, multi-continent and single-city studies from the U.S., Canada and Europe occurs at mean smog concentrations of less than 63 parts per billion.[7] Even in health adults, exposure to smog at levels of 60 parts per billion—considerably below EPA's current standard—has been shown to cause adverse respiratory impacts including swollen lungs.[8]

II. Connecticut's Ozone Air Quality Problem

The adverse health impacts of smog are particularly significant in Connecticut. As EPA recently documented in rescinding Connecticut's Clean Data Determination for the 1997 8-hour ozone NAAQS, Connecticut's air quality is the worst in the East. As Table 1 illustrates, Connecticut has three monitors that exceed EPA's now long-outdated 1997 8-hour ozone NAAQS of 0.084 parts per million (ppm) and far exceed EPA's 2008 8-hour ozone NAAQS of 0.075 ppm.

Table 1: 2010-2012 and 2011-2013 8-hour Ozone Design Values for Connecticut Monitors

Site Location	Monitor ID	2010-2012 Design value (ppm)	2011-2013 Design value (ppm)
Danbury	090011123	0.083[9]	0.081
Greenwich	090010017	0.082	0.083
Madison	090093002	0.087[10]	0.089

[5] McConnell et al. (2002). Asthma in Exercising Children Exposed to Ozone. The Lancet 2002; 359: 386-391. http://dx.doi.org/10.1016/S0140-6736(02)07597-9. Islam et al. (2008). Ozone, oxidant defense genes and risk of asthma during adolescence. Am J Respir Crit Care Med 177: 388-395. http://dx.doi.org/10.1164/rccm.200706-863OC.

[6] Hansen et al. (2006). Maternal exposure to low levels of ambient air pollution and preterm birth in Brisbane, Australia. BJOG.113: 935-941. http://dx.doi.org/10.1111/j.1471-0528.2006.01010.x.

[7] *See* ISA (2013) at 2-22 (summarizing existing research).

[8] *See* Kim et al. (2011). Lung function and inflammatory responses in healthy young adults exposed to 0.06 ppm ozone for 6.6 hours. Am J Respir Crit Care Med 183: 1215-1221. http://dx.doi.org/10.1164/rccm.201011-1813OC; McDonnell et al. (2010). Prediction of ozone-induced lung function responses in humans. Inhal Toxicol 22: 160-168. http://dx.doi.org/10.3109/08958370903089557; Schelegle et al. (2009) concentrations from 60 to 87 parts per billion in healthy humans. Am J Respir Crit Care Med 180: 265-272. http://dx.doi.org/10.1164/rccm.200809-1484OC; Brown et al. (2008). Effects of exposure to 0.06 ppm ozone on FEV1 in humans: A secondary analysis of existing data. Environ Health Perspect 116: 1023-1026; Adams (2006). Comparison of chamber 6.6-h exposures to 0.04-0.08 ppm ozone via square-wave and triangular profiles on pulmonary responses. Inhal Toxicol 18: 127-136.

[9] Orange denotes failure to attain the 2008 8-hour ozone NAAQS.

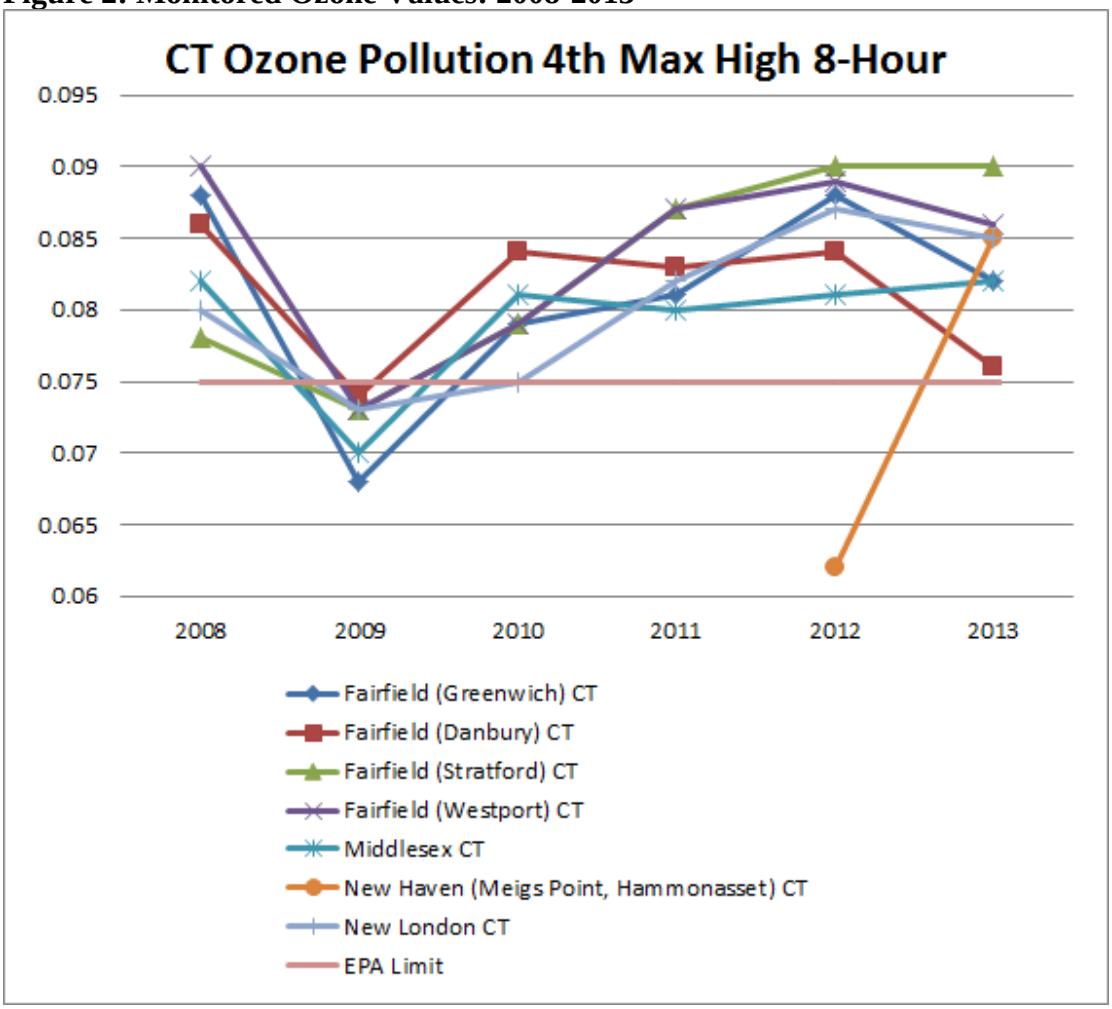
[10] Red denotes failure to attain both the 2008 and 1997 8-hour ozone NAAQS.

Middletown	090070007	0.080	0.081
New Haven	090099005	0.076	0.078
Stratford	090013007	0.085	0.089
Westport	090019003	0.085	0.087

Source: 79 Fed. Reg. 27,832, Tbl. 1 (May 15, 2014)

A review of monitored ozone values for the past six years shows that Connecticut's air quality is not improving. Indeed, for a number of monitors it appears to actually be declining.

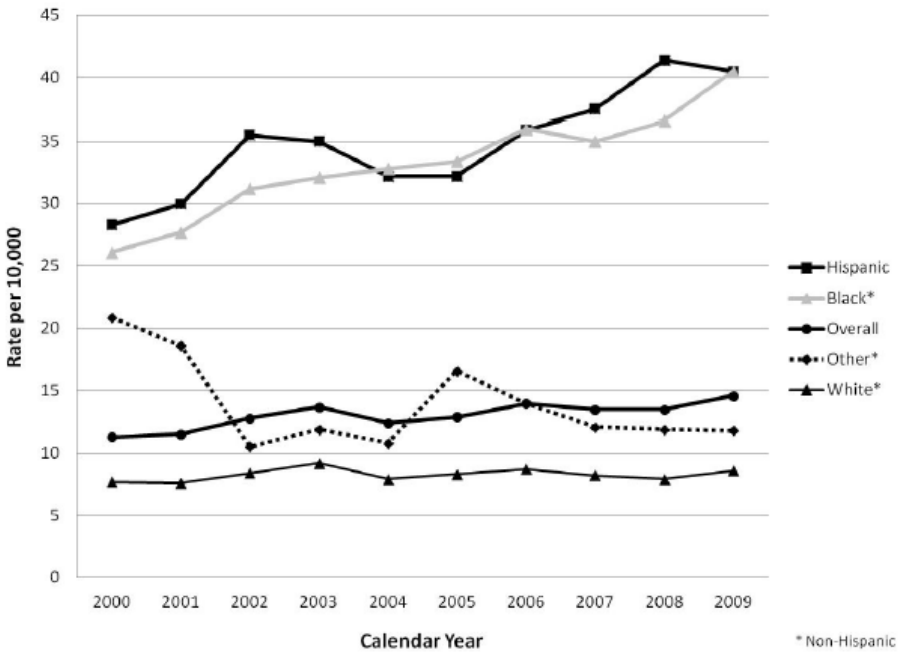
Figure 2: Monitored Ozone Values: 2008-2013



Due to Connecticut's failing air quality, EPA recently proposed to rescind Connecticut's Clean Data Determination under the 1997 8-hour ozone NAAQS. Rescission of the Clean Data Determination places the southwest portion of the State in imminent danger of being bumped up to "serious" nonattainment status, a status that carries with it a number of significant obligations. Notably, a serious nonattainment designation would require overall 3% annual reductions in NOx, highlighting the importance of obtaining significant reductions through the current RACT development process.

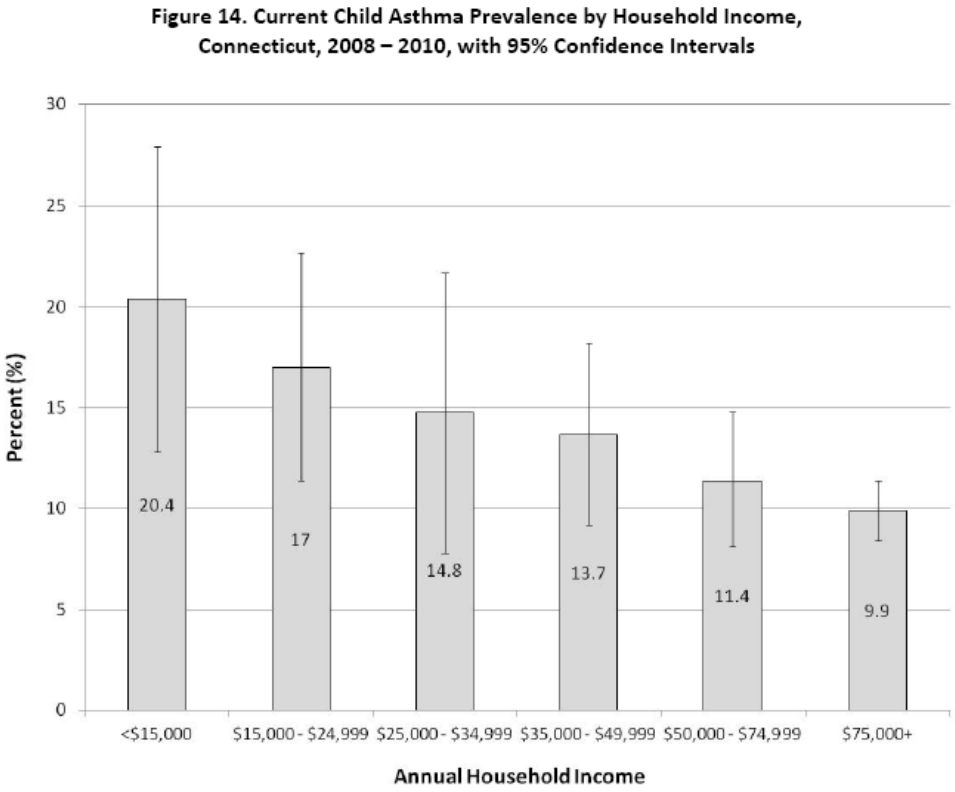
Moreover, Connecticut's failing air quality entails serious health burdens (and significant health costs) for the State's residence. Connecticut consistently exceeds the national average in rates of both adult and childhood asthma.[11] In 2010, asthma prevalence surpassed 15% for both adults and children in Connecticut.[12] These adverse health impacts are not evenly distributed across classes and races in the State. Instead, lower income households and blacks and Hispanics in particular bear an overwhelming share of the asthma burden. According to data from the Connecticut Department of Public Health presented in the figure below, in 2009, blacks and Hispanics in Connecticut were more than four times as likely as whites to be hospitalized for asthma, a gap that has been growing for more than a decade.[13]

Figure 19. Asthma Hospitalization Rates by Year and Race/Ethnicity, Connecticut, 2000 – 2009



In addition, childhood asthma prevalence correlates clearly and inversely with household income, with the lowest income households experiencing rates of childhood asthma more than double those of households earning $75,000 or more, as illustrated in the figure below.[14] This means that those who can least afford it bear the largest health burdens.

[11] *See* Connecticut Department of Public Health. The Burden of Asthma in Connecticut: 2012 Surveillance Report, at 24, 30, available at http://www.ct.gov/dph/lib/dph/hems/asthma/pdf/full_report_with_cover.pdf.
[12] *Id.*
[13] *Id.* at 51.
[14] *Id.* at 35.



III. Connecticut NOx RACT for Large Stationary Boilers and Turbines Should Be Revised to Require SCR-level Controls on These Units

As acknowledged by DEEP in its RACT SIP submission, further steps are necessary to reduce emissions from Connecticut's large stationary sources. For the major non-CTG sources of NOx, DEEP determined that "the requirements of two programs are no longer RACT, requiring further analysis of the options to revise the NOx control requirements to a RACT level."[15] This is appropriate because Connecticut's current NOx RACT regulations for large stationary sources went into effect twenty years ago and now lag significantly behind peer states.

In reevaluating RACT for these sources, DEEP should require SCR as RACT for coal electric generating units (EGUs). RACT is defined as "the lowest emissions limit that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility."[16] The RACT definition comprises two parts: (A) technological feasibility and (B) economic feasibility.

(A) Technological Feasibility:

[15] Draft RACT Analysis at 24.
[16] COMAR 26.11.01.01.B(40); *accord* U.S. EPA, State Implementation Plans; Nitrogen Oxides Supplement to the General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990, 57 Fed. Reg. 55,620, 55,624 (Nov. 25, 1992).

"The technological feasibility of applying an emission reduction method to a particular source should consider the source's process and operating procedures, raw materials, physical plant layout, and any other environmental impacts such as water pollution, waste disposal, and energy requirements."[17] Installation of SCR would be technologically feasible on any large coal EGU and would not create collateral adverse impacts to water pollution, waste disposal, or impose significant additional energy requirements. Indeed, as discussed below, SCR is the most widespread control technology and is installed on all coal units larger than 125 MW in a number of states.

(B) Economic Feasibility

"Economic feasibility considers the cost of reducing emissions and the difference in costs between the particular source and other similar sources that have implemented emission reduction."[18]

> EPA presumes that it is reasonable for similar sources to bear similar costs of emission reductions. **Economic feasibility rests very little on the ability of a particular source to 'afford' to reduce emissions to the level of similar sources. Less efficient sources would be rewarded by having to bear lower emission reduction costs if affordability were given high consideration. Rather, economic feasibility for RACT purposes is largely determined by evidence that other sources in a source category have in fact applied the control technology in question.**[19]

SCR is the most widespread control technology for NOx and has been installed or is slated for installation on over 47% of active coal units in the country above 150 MW. When units that have announced an intention to retire are excluded, the percentage of units over 150 MW with SCR or with plans to install SCR rises to nearly 52%.

The prevalence of SCR is even greater when one considers only the states in the East. Of the eighteen easternmost states with coal plants, Connecticut ranks **dead last** in the proportion of coal units controlled by SCR.[20]

(1) Delaware – 100%
(2) Massachusetts – 100%
(3) New Hampshire – 100%
(4) New Jersey – 100%

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[17] U.S. EPA, State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990; Supplemental, 57 Fed. Reg. 18,070, 18,074 (Apr. 28, 1992).
[18] 57 Fed. Reg. at 18,074.
[19] *Id.*
[20] Percentage of each state's coal units 125 MW or larger currently equipped with SCR, with announced plans to install SCR by 2016, or with announced plans to retire the unit by 2016. Note that three Eastern states—Maine, Rhode Island, and Vermont—have no coal plants and are therefore not included.

(5) South Carolina – 100%
(6) Tennessee – 100%
(7) West Virginia – 88%
(8) Ohio – 76%
(9) Georgia – 73%
(10) Pennsylvania – 72%[21]
(11) Florida – 70%
(12) Alabama – 65%
(13) North Carolina – 63%
(14) Virginia – 60%
(15) Kentucky – 56%
(16) Maryland – 43%[22]
(17) New York – 40%[23]
(18) Connecticut – 0%

Moreover, EPA has explained that RACT is not intended to enshrine existing installed control technologies, but rather is technology-forcing.[24] "In determining RACT for an individual source or group of sources, the control agency, using the available guidance, should select the best available controls, deviating from those controls only where local conditions are such that they cannot be applied there and imposing even tougher controls where conditions allow."[25] "**In every case RACT should represent the toughest controls considering technological and economic feasibility that can be applied to a specific situation. Anything less than this is by definition less than RACT and not acceptable for areas where it is not possible to demonstrate attainment**"[26] "In those situations where the State's control strategy cannot demonstrate attainment it will be necessary for the State to document that their control strategy represents the application of reasonably available control measures to all available source categories. The Region should not approve a control strategy that does not contain sufficient documentation to show that the required control measures are the toughest that are reasonably available for the sources in the area covered by the control strategy." [27]

[21] When planned retirements are excluded, the percentage is actually higher (78%), as there are coal units in Pennsylvania equipped with SCR that have announced plans to retire by 2016.
[22] Maryland is in the process of developing new, considerably more stringent NOx RACT requirements (expected out in the fall) that would require SCR-level controls or emission reductions from all of the state's coal units.
[23] New York DEC has recently required the 153 MW non-SCR unit at Cayuga to install SCR, repower to natural gas, or shut down by July 1, 2018. The addition of SCR at Cayuga Unit 2 would increase the New York figure from 40% to 60%.
[24] *See* Memorandum from Roger Strelow, Assistant Administrator for Air and Waste Management, U.S. EPA, to Regional Administrators, Regions I - X (Dec. 9, 1976), at 2 ("RACT encompasses stringent, or even 'technology forcing,' requirement that goes beyond simple 'off-the-shelf' technology.") [hereinafter "Strelow Memo"].
[25] Strelow Memo at 2.
[26] *Id.* at 3.
[27] *Id.* at 4.

EPA has also explained that the cost-effectiveness threshold for RACT controls is a function of the severity of the nonattainment, and that areas with more severe nonattainment will need to increase the threshold for cost-effectiveness accordingly.[28] EPA has stated that:

> **Areas with more serious air quality problems typically will need to obtain greater levels of emissions reductions from local sources than areas with less serious problems, and it would be expected that their residents could realize greater public health benefits from attaining the standard as expeditiously as practicable. For these reasons, EPA believes that it will be reasonable and appropriate for areas with more serious air quality problems and higher design values to impose emission reduction requirements with generally higher costs per ton of reduced emissions than the cost of emissions reductions in areas with lower design values. In addition, where essential reductions are more difficult to achieve (e.g., because many sources are already controlled), the cost per ton of control may necessarily be higher.**[29]

Where, as in Connecticut, the nonattainment problem is severe, a robust approach to cost-effectiveness is required.

This is particularly true given that the most serious health impacts from ozone are associated with high energy demand days when Connecticut's coal-fired EGU—Bridgeport Harbor Station Unit 3—is most likely to be operating. Indeed, there is a strong correlation between high ozone episodes and days when Bridgeport Harbor Station is operating, as illustrated by Figures 3-6 below.

[28] *See* http://www.epa.gov/air/lead/kittech.html.
[29] *Id.*; *accord* Strelow Memo at 5 ("We should ensure that all sources contributing to the nonattainment situation are required to implement restrictive available control measures even if it requires significant sacrifices.").

Figure 3: Bridgeport Harbor Station 2010 Daily Ozone Season NOx Emissions with Ozone Exceedance Days Marked

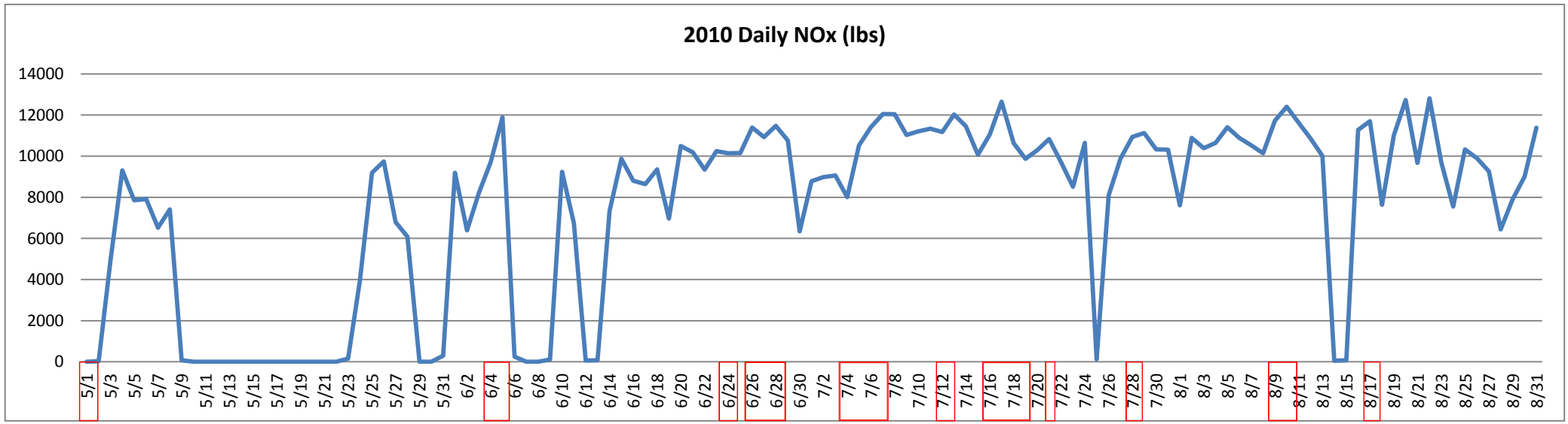


Figure 4: Bridgeport Harbor Station 2011 Daily Ozone Season NOx Emissions with Ozone Exceedance Days Marked

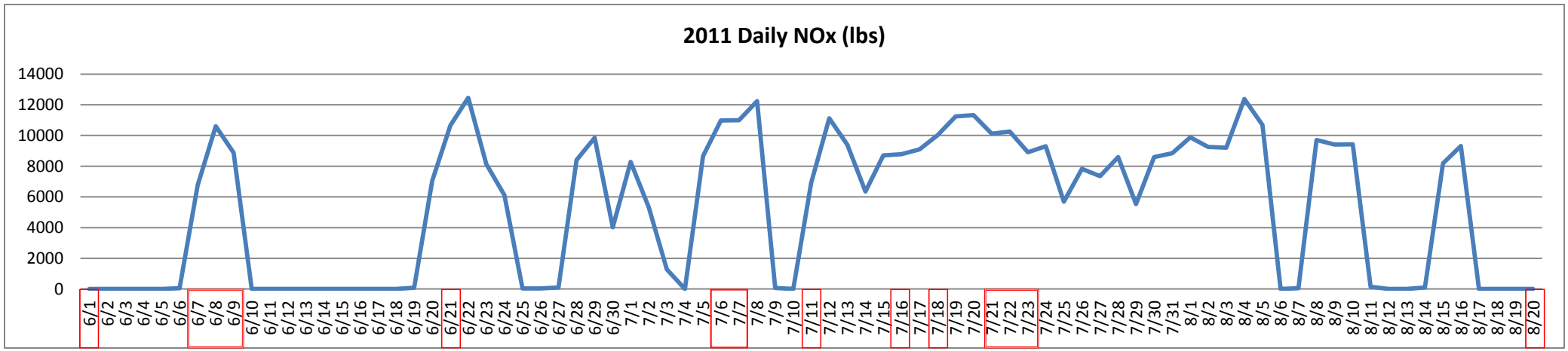


Figure 5: Bridgeport Harbor Station 2012 Daily Ozone Season NOx Emissions with Ozone Exceedance Days Marked

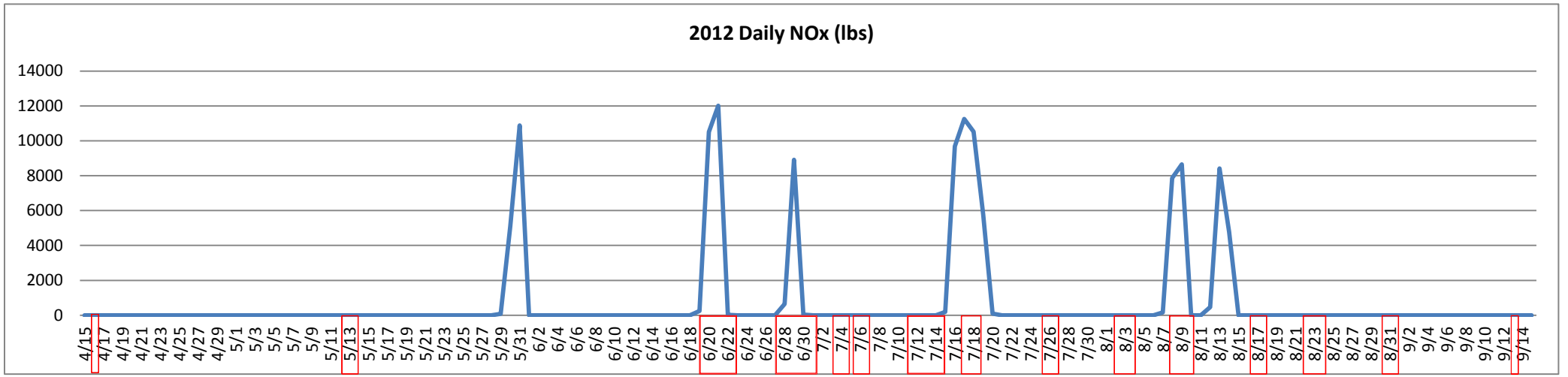
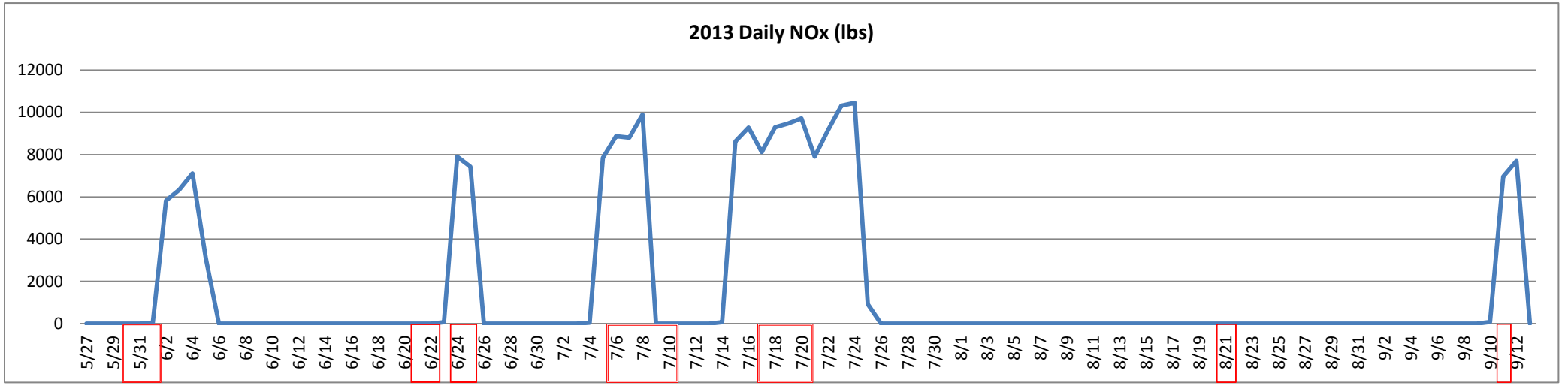


Figure 6: Bridgeport Harbor Station 2013 Daily Ozone Season NOx Emissions with Ozone Exceedance Days Marked

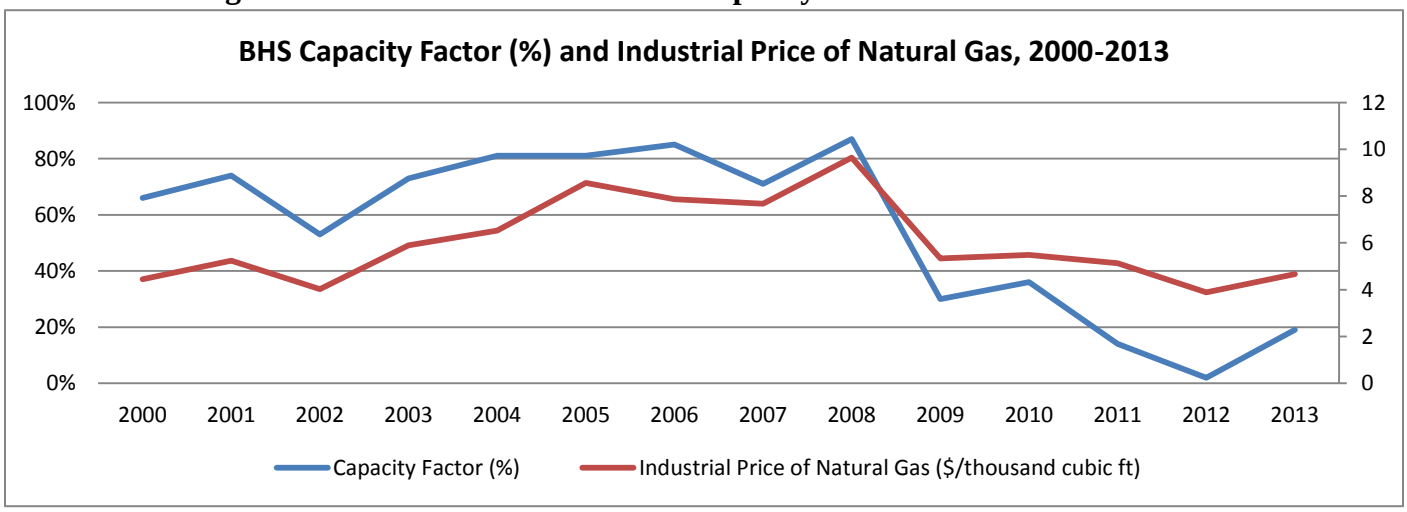


Bridgeport's emissions are loading Connecticut's atmosphere with NOx at exactly the wrong times: when ozone levels are at their highest. And because of the coincidence of its operations with peak ozone formation conditions, Bridgeport has a significant impact on Connecticut's ozone issues even in years when, as an annual matter, it is not operating at a high capacity.

DEEP's own analysis illustrates that Bridgeport Harbor Station is responsible for a significant fraction of Connecticut's EGU emissions on peak days. According to DEEP, during the June 20-21, 2012 ozone episode EGU emissions averaged 18 tons per day.[30] Of this 18 tons, 31% (nearly 1/3rd) came from coal units (i.e., Bridgeport Harbor Station Unit 3, as no other coal units were operating in Connecticut at that time according to the Air Markets Program Database).[31] It is imperative Bridgeport Harbor Station be capable of curtailing its NOx emissions including on peak days to levels consistent with the installation and operation of SCR.

Moreover, Bridgeport Harbor Station Unit 3's emissions are not merely a peak day phenomenon. Rather, Unit 3's level of operation correlates closely with industrial natural gas prices, as illustrated in Figure 7 below. When gas prices are low, coal plants are less able to compete and consequently, capacity factors drop. When gas prices rebound coal plant operations, including those at Bridgeport Harbor Station, likewise rebound.

Figure 7: Correlation Between BHS Capacity Factor and Natural Gas Prices



Boilers equipped with SCR can reliably achieve rates of less than 0.07 lb/MMBtu. SCR catalysts have been applied over the last 20 years as retrofits to existing power plants across the country and have a proven track record of meeting low emission rates. In particular, a limit of 0.07 lb/MMBtu based on an eight-hour averaging time that applies at all times, including during

[30] Draft RACT Analysis at 27, Fig. 6.
[31] *Id.* The Air Markets Program Database confirm that Bridgeport Harbor Station's coal unit emissions approximately 6 tons NOx/day when operating at a high capacity factor, as it frequently does on high energy demand days. *See* http://ampd.epa.gov/ampd/.

startup and shut down is readily achievable.[32] EPA has long acknowledged that 90% removal efficiency for SCR on coal-burning units is achievable,[33] and vendors such as Haldor Topsoe and Cormetech now advertise SCR equipment capable of reducing NOx by more than 95%.[34] Using EPA's more conservative control estimate of 90% and taking even the highest emission rate that EPA has set with no post-combustion control—that is, 0.5 lb/MMBtu—an emission limit of 0.05 lb/MMBtu is clearly achievable. A 0.07 lb/MMBtu limit incorporates a significant 40% "safety factor" and is readily achievable.

A review of the RACT/BACT/LAER clearinghouse demonstrates that numerous PSD permits for coal-burning boilers were issued in the early 2000's with emission limits of 0.07 lb/MMBtu. Later that decade, permits for proposed new coal plants were issued with NO_x limits of 0.05 lb/MMBtu. For example, MDEQ's permit to install for the Consumers Energy Karn-Weadock plant included a NO_x emissions limit of 0.05 lb/MMBtu. EPA acknowledged, in setting limits for the proposed Desert Rock facility, that even 0.05 lb/MMBtu involves a significant "safety factor." In 2001, Babcock & Wilcox Company, in its paper, "How Low Can We Go," states that 0.016 lb/MMBtu was achievable for units burning bituminous coal and 0.008 lb/MMBtu for those burning Powder River Basin coal.[35] Bridgeport Harbor Station burns a very low-sulfur subbituminous coal from Indonesia and should be readily capable of meeting extremely low rates with the installation and operation of appropriate post-combustion controls.

In addition, actual data confirm that 0.07 lb/MMBtu is easily achievable at plants burning a range of fuel types. For example, during 2013, 88 coal-fired units achieved emission limits of 0.07 lb/MMBtu or less according to data from EPA's Air Markets Program Database. And very well controlled units such as the Morgantown coal plant in Maryland, which burns bituminous coal, routinely achieve NOx emission rates below 0.04 lb/MMBtu.[36]

Finally, other states have already established RACT limits for coal plants that are well below Connecticut's current RACT requirements and are generally calibrated to drive SCR-level controls.

(A) Wisconsin

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[32] While these emission rates should be based on 0.07 lb/MMBtu, the limit should be set as a lb/hour limit, calculated by multiplying 0.07 MMBtu/hr times the maximum allowable heat input or maximum heat input in prior permit applications for the EGU. Setting the limit in lb/hour ensures consistent protection of the ambient air quality regardless of whether the claimed maximum heat input capacity for the unit is accurate or changes in the future. In addition, a limit in lb/hour addresses the issue of startup and shutdown. Even if the NO_x emission rate in lb/MMBtu is higher during startup and shutdown when the SCR cannot be engaged, the source should be able to remain under the limit because the heat input is lower during startup and shutdown.

[33] *See* EPA, Ambient Air Quality Impact Report for Desert Rock Energy Facility PSD Permit, at 8, Tbl. 3.

[34] *See* http://www.ccj-online.com/bg/companies/haldor-topsoe-as/ (Feb. 14, 2014) (Haldor Topsoe advertising Topsoe SCR series of catalysts with demonstrated capability of reducing greater than 95% NOx at a low ammonia slip while operating from 300 to 1,100 degrees F); http://www.ccj-online.com/bg/companies/cormetech/ (Feb. 14, 2014) (Cormetech advertisement discussing NΞxtGΞN Hi-ACTive SCR catalyst achieving upwards of 95% NOx reduction).

[35] *See* Ambient Air Quality Impact Report for Desert Rock Energy Facility PSD Permit, at 5, Tbl. 2.

[36] *See* Air Markets Program Database, http://ampd.epa.gov/ampd/.

Wisconsin has established RACT limitations that require rates consistent with installation and operation of SCR. These regulations require that after May 1, 2009 solid fuel-fired boilers with a maximum heat input capacity of 1,000 MMBtu/hr or higher must meet the following rates as a 30-day rolling average:

For tangential, wall, cyclone or fluidized bed-fired boilers: 0.10 lb/MMBtu
For arch-fired boilers: 0.18 lb/MMBtu

Wis. Nat. Res. 428.22(1)(a)1.a & b.

(B) New York

New York has established RACT requirements for boilers greater than 250 MMBtu/hr that are effective July 1, 2014. These limits are set forth in Table 8 below[37]:

Table 8: New York RACT Limits for Boilers Greater than 250 MMBtu/hr

Fuel Type	*Tangential*	*Wall*	*Cyclone*	*Fluidized Bed*
Gas Only	0.08	0.08	Na	na
Gas/Oil	0.15	0.15	0.20	na
Coal Wet Bottom	0.12	0.12	0.20	na
Coal Dry Bottom	0.12	0.12	Na	0.08

Source: 6 N.Y.C.R.R. § 227-2.4(a)(1)(ii).

(C) Delaware

Delaware has established a uniform standard of 0.125 lb/MMBtu as a 24-hour rolling average that applies to coal-fired and residual oil-fired electric generating units located in Delaware with a nameplate capacity rating of 25 MW or greater beginning January 1, 2012. 7 Del. Admin. Code § 1146-4.3.

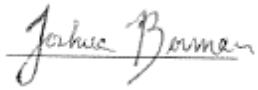
IV. Conclusion

The Sierra Club supports Connecticut's commitment to update its NOx RACT requirements for fuel-burning sources including boilers, turbines and engines. As detailed above, Connecticut's ozone problem is one of the most severe in the nation and it is the only state in the East whose coal EGU has no add-on controls for NOx. The Sierra Club looks forward to participating in the stakeholder workgroup to review and develop appropriate changes to RCSA section 22a-174-22.

[37] New York RACT regulations allow for fleetwide averaging, 6 N.Y.C.R.R. § 227-2.5(b), and also provide an exception for a demonstration by the source of technical or economic infeasibility, *see id.* § 227-2.5(c).

Thank you for your consideration.

Respectfully submitted,



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