



**M. Jodi Rell**

GOVERNOR

STATE OF CONNECTICUT

December 17, 2010

Mr. H. Curtis Spalding, Regional Administrator  
USEPA REGION 1 - New England  
5 Post Office Square  
*Mail Code:* ORA01-4  
Boston, MA 02109-3912

***Re: Recommended Area Designations for the Revised NO<sub>2</sub> Air Quality Standard***

Dear Administrator Spalding:

I am writing to provide you with Connecticut's recommended designations for the revised national ambient air quality standard (NAAQS) for nitrogen dioxide (NO<sub>2</sub>) finalized by the U.S. Environmental Protection Agency (EPA) on January 22, 2010. Section 107(d)(1) of the Clean Air Act (CAA) provides up to one year after adoption of a new or revised NAAQS for states to submit recommendations identifying areas that comply with the standard or that violate or contribute to nearby violations of the standard.

Based on the attached review of data from Connecticut's ambient air quality monitoring network, all existing sites are in compliance with the revised NO<sub>2</sub> NAAQS; however, the EPA's new monitoring requirements scheduled to begin January 1, 2013 focus on the levels of NO<sub>2</sub> pollution near major roadways. The State of Connecticut does not currently have a near roadway monitoring.

Given the lack of near-road monitors and the likelihood that NO<sub>2</sub> levels may be elevated at high traffic locations, the state of Connecticut should be designated unclassifiable until sufficient near-road data are available from the expanded monitoring network.

Please contact Anne Gobin, Chief of CTDEP's Bureau of Air Management at 860-424-3026 with any questions regarding this recommendation.

Yours truly,

A handwritten signature in cursive script that reads "M. Jodi Rell".

M. Jodi Rell  
Governor

cc: D. Conroy (EPA Region I)  
A. Marrella (CTDEP)  
A. Gobin (CTDEP)

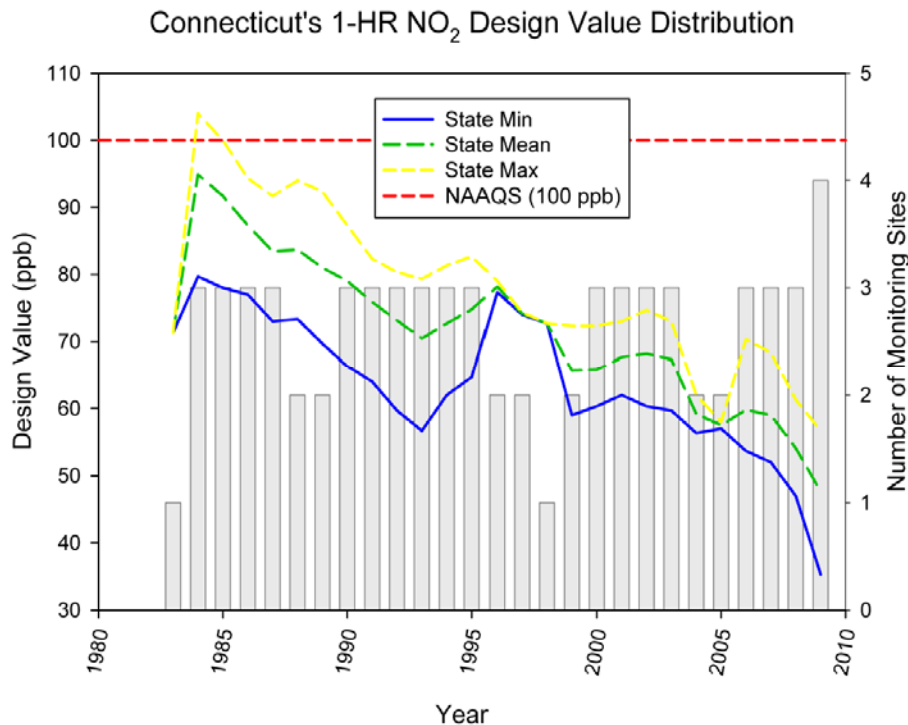
**ATTACHMENT**  
**Connecticut's NO<sub>2</sub> Ambient Data Summary**  
**(December 2010)**

On January 22, 2010, the U.S. Environmental Protection Agency (EPA) finalized revisions<sup>1</sup> to the national ambient air quality standards (NAAQS) for NO<sub>2</sub>, adopting a 1-hour standard of 100 ppb<sup>2</sup> and retaining the existing annual standard of 53 ppb. Section 107(d)(1) of the Clean Air Act (CAA) provides up to one year after adoption of a new or revised NAAQS for states to submit recommendations identifying areas that comply with the standard or that violate or contribute to nearby violations of the standard. As summarized below, available NO<sub>2</sub> ambient monitoring data support a designation of unclassifiable for all of Connecticut for the revised NO<sub>2</sub> NAAQS.

**Summary of Connecticut NO<sub>2</sub> Ambient Monitoring Data**

CTDEP currently operates a network of three NO<sub>2</sub> monitors, located in Westport, East Hartford, and New Haven<sup>3</sup>. As depicted in Figures 1 and 2, hourly design values recorded at CTDEP sites last exceeded the 100 ppb 1-hour NAAQS in 1984, with current design values less than 60 ppb. Figures 3 and 4 show that annual NO<sub>2</sub> design values at Connecticut monitors have been well below the 53 ppb NAAQS going back to at least 1980.

Figure 1. The Distribution of 1-Hour NO<sub>2</sub> Design Values for Connecticut.



<sup>1</sup> The final rule was published in the Federal Register on February 9, 2010 ([75 FR 6474](#)).

<sup>2</sup> Design values for NO<sub>2</sub> are determined in accordance with Section 5 of [Appendix S of 40CFR50](#). The 1-hour design value at each monitor is determined as the 3-year rolling average of the 98<sup>th</sup> percentile of maximum daily hourly values. The annual design value at each monitor is determined as the arithmetic average for all reported 1-hour values for the year.

<sup>3</sup> CTDEP operated a special purpose site in Thomaston during 2007-2009, recently removed. As shown in Figures 1-4, NO<sub>2</sub> monitoring was also conducted at other locations during previous years.

Figure 2. Connecticut's 1-Hour NO<sub>2</sub> Design Value Trends

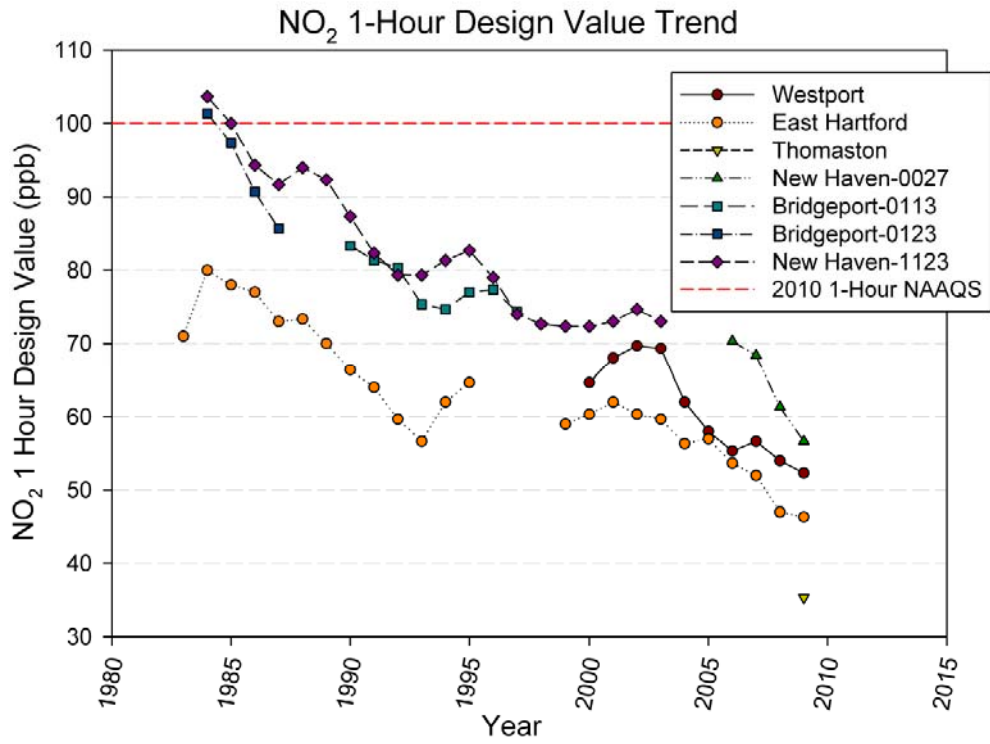


Figure 3. Connecticut's Annual NO<sub>2</sub> Design Value Distribution.

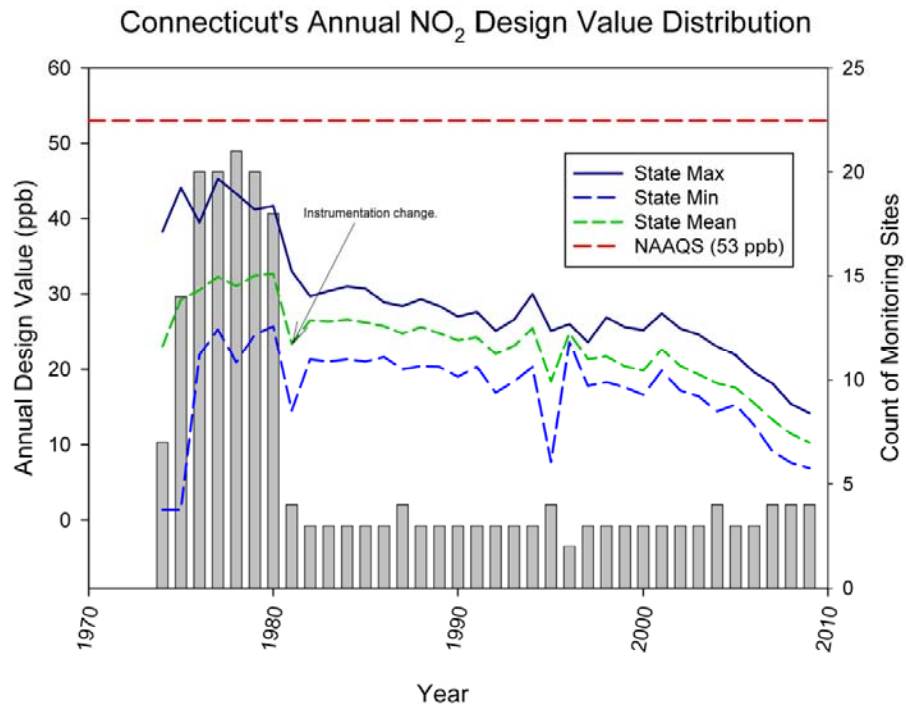
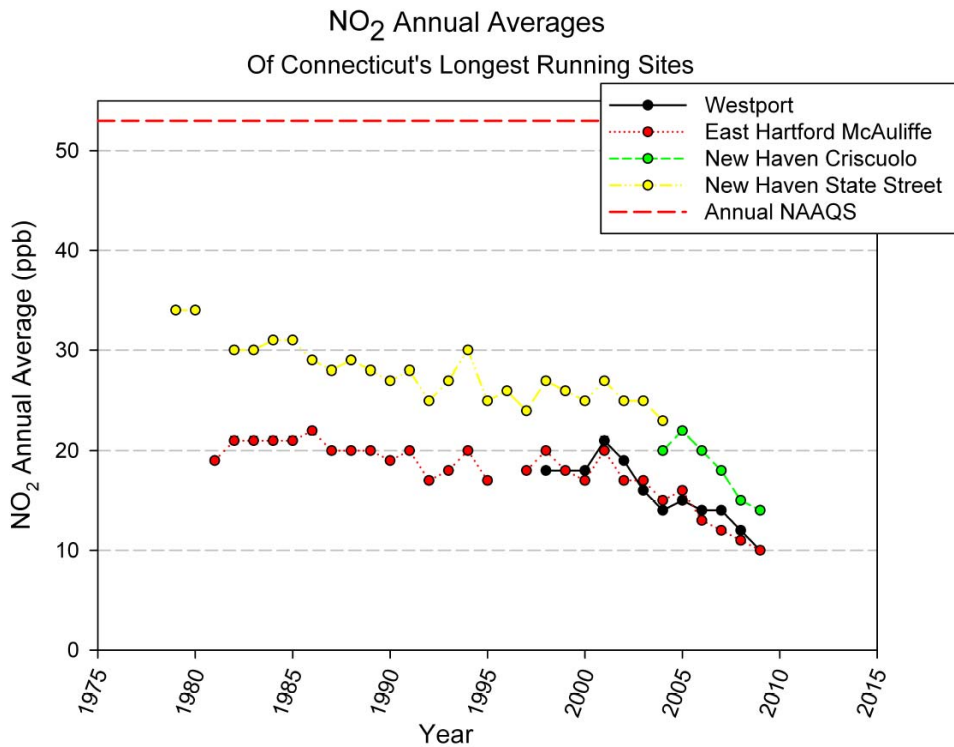


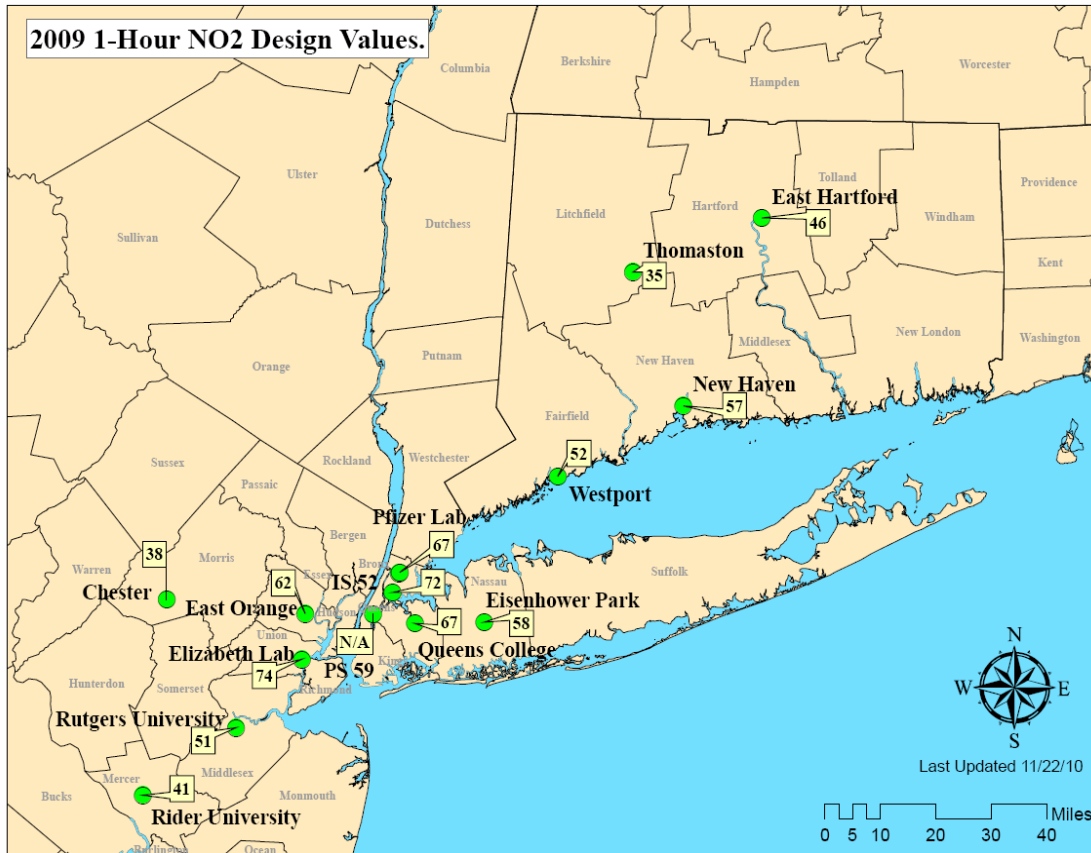
Figure 4. Connecticut's NO<sub>2</sub> Annual Average Trend



**Summary of NO<sub>2</sub> Ambient Monitoring Data in the New York City Metropolitan Area**

EPA often uses defined urban boundaries as the starting point for determining the geographic extent of potential nonattainment areas. The New York City Consolidated Statistical Area (CSA) includes the southwest portion of Connecticut along with several northern New Jersey and downstate New York counties. Figure 5 displays 2009 1-hour NO<sub>2</sub> design values for monitors located within the New York City CSA, as well as other NO<sub>2</sub> monitors located elsewhere in Connecticut. Design values at all monitoring sites are in compliance with the newly adopted 1-hour NAAQS.

Figure 5. Connecticut and New York City CSA 2009 1-Hour NO<sub>2</sub> Design Values.



## **Recommendation**

As described above, all CTDEP sites currently measure compliance with both the 1-hour and annual NO<sub>2</sub> NAAQS. However, none of these monitors are located near high volume roadways, where car and truck exhaust can result in higher NO<sub>2</sub> levels, especially during peak traffic periods. Therefore, it is not possible at this time to make a determination of attainment status for all areas of Connecticut. Consistent with revised monitoring requirements finalized by EPA along with the NAAQS revisions<sup>4</sup>, CTDEP will establish an appropriate near-road monitoring network and begin data collection by January 1, 2013. Any necessary adjustments will also be made to the existing network in order to satisfy EPA's revised requirements for area-wide monitoring. As resources allow, CTDEP will develop the revised NO<sub>2</sub> network in consultation with EPA Region 1 and other stakeholders as part of the annual monitoring network planning process. With near-road monitoring commencing in January 2013, the three years of data required for design value calculations and subsequent attainment/nonattainment determinations will not be available until after 2015. In the interim, CTDEP is recommending that EPA designate all of Connecticut as "unclassifiable" under CAA Section 107(d)(1).

<sup>4</sup> [75 FR 6502-6517](#).