M. Jodi Rell
GOVERNOR
STATE OF CONNECTICUT

October 6, 2009

The Honorable Lisa P. Jackson
Administrator
U.S. Environmental Protection Agency
Ariel Rios Building, 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator Jackson:

I am writing to provide you with Connecticut's recommended attainment designations for the revised national ambient air quality standard (NAAQS) for airborne lead, which was finalized by the U.S. Environmental Protection Agency (EPA) on October 15, 2008. 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 a review of monitored data and consistent with CAA Section 107(d)(1) and EPA guidance, the entire state of Connecticut should be designated as attainment for the revised lead NAAQS.

This recommendation for a statewide attainment designation is supported by available lead monitoring and emissions data, as summarized in the attachment. The Connecticut Department of Environmental Protection's (CTDEP) most recent ambient lead measurements associated with total suspended particulate (TSP) monitors were collected in calendar year 2002. Those data indicate that maximum 3-month running averages at that time were 0.01$\mu g/m^3$, well below the revised lead NAAQS of 0.15 $\mu g/m^3$. More recent lead levels gathered through 2008 are estimated to be less than 0.015 $\mu g/m^3$, as derived from Connecticut's fine particle ($PM_{2.5}$) speciation sites. These low measured lead levels are consistent with the low estimated emissions from individual lead sources in Connecticut, all of which are significantly less than either the 0.5 ton/year or 1.0 ton/year emission thresholds currently identified by EPA as triggering the need for source-specific ambient lead monitoring. When considered together, both the ambient monitored data and source emission levels support an attainment designation for the revised lead NAAQS throughout Connecticut.

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

Sincerely,

M. Jodi Rell

M. Jodi Rell
Governor

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

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ATTACHMENT
Connecticut's Recommended Designations for the 2008 Lead NAAQS
Summary of Ambient Monitoring and Source Emissions Data
(October 2009)

On October 15, 2008, the U.S. Environmental Protection Agency (EPA) finalized revisions to the national ambient air quality standard (NAAQS) for airborne lead, adopting a more stringent standard of 0.15 µg/m^3 (three month rolling average) compared to the previous NAAQS of 1.5 µg/m^3(quarterly average). 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 lead ambient monitoring and source emissions data support a designation of attainment for all of Connecticut for the revised lead NAAQS.

Summary of Lead Ambient Monitoring Data

CTDEP's most recent monitoring for ambient lead levels in total suspended particulates (TSP) was conducted in downtown Waterbury through the end of 2002. As summarized in Table 1, 3-month average lead concentrations in 2002 were more than a full order of magnitude below the 2008 NAAQS of 0.15 µg/m^3. More recent measurements of lead have been collected in New Haven as part of the Speciated Trends Network (STN) and in Cornwall as part of the Interagency Monitoring of Protected Visual Environments (IMPROVE) program using $PM_{2.5}$ filters (see Figure 1). Utilizing the "2/3rds method" described in the literature[1,2,3], lead-PM_{10} concentration estimates were calculated from the $PM_{2.5}$ measurements (i.e., measured lead-$PM_{2.5}$ levels were multiplied by 1.5 – the inverse of 2/3rds -- to estimate lead-PM_{10} levels). Calculated lead-PM_{10} values are all less than 0.01 µg/m^3, more than a full order of magnitude below the 2008 lead NAAQS.

Summary of Lead Source Emission Levels

In addition to reviewing ambient lead measurements, CTDEP also examined available emissions data to identify the largest sources of lead in Connecticut, as summarized in Table 2 and Figure 2. All sources identified had lead emissions below 0.3 tons/year, less than 30% of the 1.0 ton/year source magnitude identified by EPA as requiring source-oriented ambient monitoring.

Recommendation

When considered together, the low levels of both ambient monitored and source emissions of lead support an attainment designation for the revised lead NAAQS throughout Connecticut.

[1] Allen et al. 2001. Size Distributions of Trace Metals in Atmospheric Aerosols in the United Kingdom. Atmospheric Environment. **35**. 4581-4591.
[2] Fernandez et al 2001. Size Distribution of Metals in Urban Aerosols in Seville. Atmospheric Environment. **35**. 2595-2601.
[3] Singh et al. 2002. Size Distribution and Diurnal Characteristics of Particle-Bound Metals in Source and Receptor Sites of the Los Angeles Basin. Atmospheric Environment.**36**. 1675-1689.

Table 1. Waterbury, Connecticut; Low-Volume TSP Lead Monitoring Data for 2002

Date	Monthly Lead-TSP Concentration (µg/m^3)	3 Month Running Average Lead-TSP Concentration (µg/m^3)
Jan-02	0.016	0.012
Feb-02	0.018	0.014
Mar-02	0.006	0.013
Apr-02	0.006	0.010
May-02	0	0.004
Jun-02	0.015	0.007
Jul-02	0.005	0.007
Aug-02	0.006	0.009
Sep-02	0.01	0.007
Oct-02	0.0058	0.007
Nov-02	0	0.005
Dec-02	0.0029	0.003
Annual Average:		0.008

Figure 1. Monthly Ambient Lead Estimates from Connecticut's IMPROVE (Cornwall, CT) and STN (New Haven, CT) Ambient Monitoring Sites

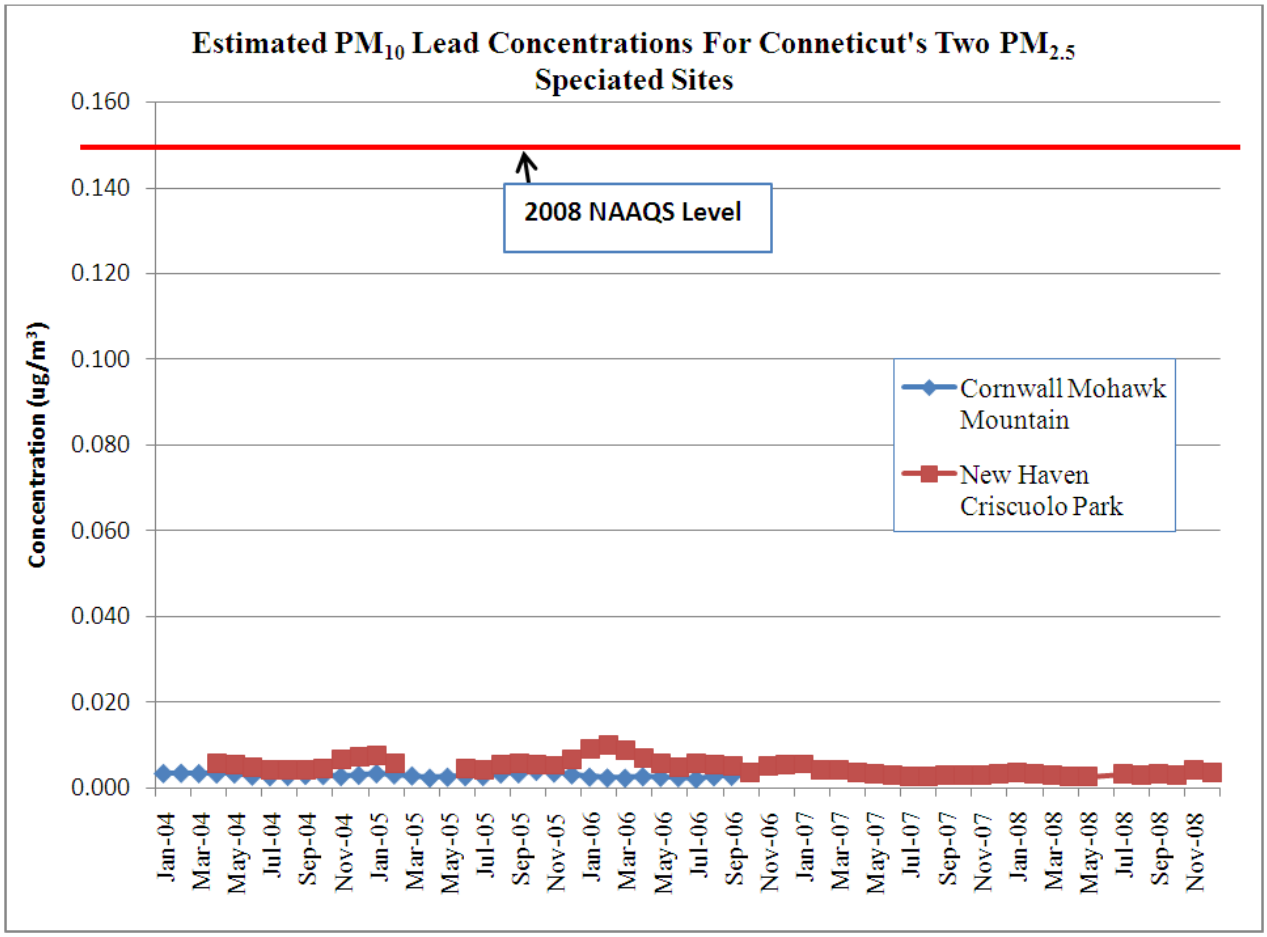
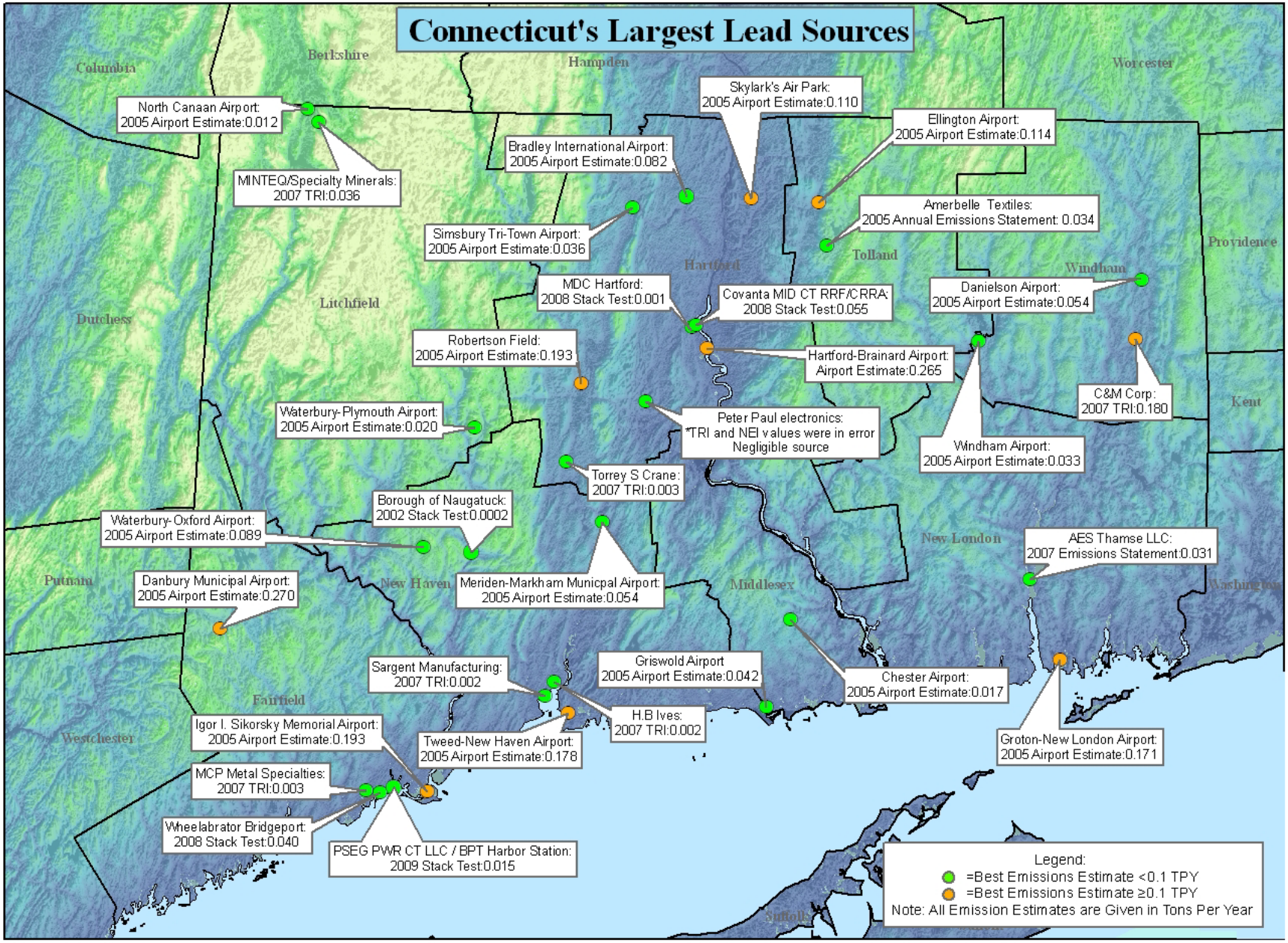


Table 2. Ranking of Connecticut's Largest Lead Sources

Facility Name	Town	Data Source	Best Estimate (TPY)
Danbury Municipal Airport	Danbury	2005 CT Airport Survey Estimate	0.270
Hartford-Brainard Airport	Hartford	2005 CT Airport Survey Estimate	0.265
Robertson Field	Plainville	2005 CT Airport Survey Estimate	0.193
Igor I. Sikorsky Memorial Airport	Bridgeport	2005 CT Airport Survey Estimate	0.193
C&M Corp	Wauregan	TRI 2007	0.180
Tweed-New Haven Airport	New Haven	2005 CT Airport Survey Estimate	0.178
Groton-New London Airport	Groton	2005 CT Airport Survey Estimate	0.171
Ellington Airport	Ellington	2005 CT Airport Survey Estimate	0.114
Skylark's Air Park	East Windsor	2005 CT Airport Survey Estimate	0.110
Waterbury-Oxford Airport	Waterbury	2005 CT Airport Survey Estimate	0.089
Bradley International Airport	Windsor	CT Airport Survey Estimate	0.082
Covanta MID CT RRF/CRRA	Hartford	May 7 2008 Stack Test	0.055
Danielson Airport	Danielson	2005 CT Airport Survey Estimate	0.054
Meriden-Markham Municipal Airport	Meriden	2005 CT Airport Survey Estimate	0.054
Griswold Airport	Essex	2005 CT Airport Survey Estimate	0.042
Wheelabrator Bridgeport	Bridgeport	June 24 2008 Stack Test	0.040
MINTEQ/Specialty Minerals	North Canaan	TRI 2007	0.036
Simsbury Tri-Town Airport	Simsbury	2005 CT Airport Survey Estimate	0.036
Amerbelle Textiles	Vernon	Annual Emissions Estimate (LPEG) 2005	0.034
Windham Airport	Windham	2005 CT Airport Survey Estimate	0.033
AES Thames LLC	Uncasville	Emissions Statement 2007	0.031
Waterbury-Plymouth Airport	Waterbury	2005 CT Airport Survey Estimate	0.020
Chester Airport	Chester	2005 CT Airport Survey Estimate	0.017
PSEG PWR CT LLC / BPT Harbor Station	Bridgeport	March 17 2009 Stack Test	0.017
North Canaan Airport	North Canaan	2005 CT Airport Survey Estimate	0.011
Torrey S Crane	Plantsville	TRI 2007	0.003
MCP Metal Specialties	Fairfield	TRI 2007	0.003
H.B Ives	New Haven	TRI 2007	0.002
Sargent Manufacturing	New Haven	TRI 2007	0.001
MDC Hartford	Hartford	October 29 2008, Stack Test	0.001
Borough of Naugatuck	Naugatuck	July 31 2002, Stack Test	negligible
Ameteck	Wallingford	Emissions Statement 2008	negligible
Radcliff Wire	Bristol	Lead use negligible	negligible
Turner & Seymour	Torrington	No lead use reported	negligible
Peter Paul electronics	New Britain	TRI 2007*corrected*	negligible
H Krevit & Company	New Haven	No lead use reported	negligible

Figure 2.


Connecticut's Largest Lead Sources
Columbia
Berkshire
Hampden
Worcester
Providence
Windham
Tolland
Hartford
Litchfield
Dutchess
Kent
New London
Middlesex
New Haven
Putnam
Fairfield
Westchester
Washington
Suffolk
North Canaan Airport: 2005 Airport Estimate:0.012
MINTEQ/Specialty Minerals: 2007 TRI:0.036
Bradley International Airport: 2005 Airport Estimate:0.082
Skylark's Air Park: 2005 Airport Estimate:0.110
Ellington Airport: 2005 Airport Estimate:0.114
Amerbelle Textiles: 2005 Annual Emissions Statement: 0.034
Simsbury Tri-Town Airport: 2005 Airport Estimate:0.036
MDC Hartford: 2008 Stack Test:0.001
Covanta MID CT RRF/CRRA: 2008 Stack Test:0.055
Danielson Airport: 2005 Airport Estimate:0.054
Robertson Field: 2005 Airport Estimate:0.193
Hartford-Brainard Airport: Airport Estimate:0.265
C&M Corp: 2007 TRI:0.180
Waterbury-Plymouth Airport: 2005 Airport Estimate:0.020
Peter Paul electronics: *TRI and NEI values were in error Negligible source
Windham Airport: 2005 Airport Estimate:0.033
Torrey S Crane: 2007 TRI:0.003
Borough of Naugatuck: 2002 Stack Test:0.0002
Waterbury-Oxford Airport: 2005 Airport Estimate:0.089
AES Thamse LLC: 2007 Emissions Statement:0.031
Danbury Municipal Airport: 2005 Airport Estimate:0.270
Meriden-Markham Municpal Airport: 2005 Airport Estimate:0.054
Griswold Airport 2005 Airport Estimate:0.042
Sargent Manufacturing: 2007 TRI:0.002
Chester Airport: 2005 Airport Estimate:0.017
H.B Ives: 2007 TRI:0.002
Igor I. Sikorsky Memorial Airport: 2005 Airport Estimate:0.193
Tweed-New Haven Airport: 2005 Airport Estimate:0.178
Groton-New London Airport: 2005 Airport Estimate:0.171
MCP Metal Specialties: 2007 TRI:0.003
Wheelabrator Bridgeport: 2008 Stack Test:0.040
PSEG PWR CT LLC / BPT Harbor Station: 2009 Stack Test:0.015
Legend:
=Best Emissions Estimate <0.1 TPY
=Best Emissions Estimate ≥0.1 TPY
Note: All Emission Estimates are Given in Tons Per Year