

# STATE OF CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION

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April 29, 2011

Mr. H. Curtis Spalding, Regional Administrator
United States Environmental Protection Agency Region 1
5 Post Office Square
Mail Code: ORA01-4
Boston, MA 02109-3912

Subject: Clean Ozone Data Determination/CAA Section 185 Fee Considerations for Southwest CT

**Dear Administrator Spalding:** 

As a result of our combined efforts to reduce emissions, improve air quality and protect public health, ozone air quality levels have steadily improved in Connecticut and across the Northeast. This improvement reflects well upon our joint state-federal partnership in the planning, adoption and implementation of air pollution reduction strategies. In fact, we are happy to report that, in both 2009 and 2010, Connecticut measured attainment with respect to both the 1997 8-hour ozone National Ambient Air Quality Standard (NAAQS) of 0.08 parts per million (effectively measured as 84 parts per billion) and the 1-hour ozone NAAQS of 0.12 ppm (effectively measured as 124 ppb). In addition, monitors in the New York and New Jersey portions of the multi-state New York City nonattainment area, which includes southwest Connecticut, are now measuring attainment with both the 1-hour and the 1997 8-hour NAAQS.

The Connecticut Department of Environmental Protection (CT DEP) requests the Environmental Protection Agency (EPA) make a finding under 40 CFR 51.198 to suspend applicable air quality planning requirements. A "clean data" determination is clearly supported based on data set forth in the attached Technical Support Document (TSD). The TSD contains data demonstrating southwest Connecticut's air quality meets both the 1997 8-hour ozone NAAQS and the 1-hour ozone NAAQS. Based on this "clean data," CT DEP further requests EPA (1) acknowledge that Connecticut is no longer obligated to develop a Clean Air Act (CAA) Section 185 fee program for southwest Connecticut and (2) withdraw the proposed disapproval (74 FR 21568; May 8, 2009) of the 8-hour ozone attainment demonstration SIP for southwest Connecticut.

EPA's Section 185 Fee Guidance indicates that after EPA determines an area is attaining <u>either</u> the 1-hour <u>or</u> 1997 8-hour ozone NAAQS, based on permanent and enforceable emissions reductions, the agency responsible for that area would no longer be obligated to submit a Section 185 fee program SIP revision. In such cases, EPA's guidance notes, an area's existing SIP would be considered an adequate alternative program because adopted measures are proven sufficient to achieve attainment.

Certified measured ozone data shows Connecticut air quality complied with <u>both</u> the 1-hour and the 1997 8-hour ozone NAAQS in 2009 and 2010. Monitors in the New Jersey and New York portions of the multi-state New York City area are also in compliance with both NAAQS. As documented in the attached TSD, compliance with these NAAQS resulted from numerous permanent and enforceable federal and state emission controls programs. Thus, Connecticut is eligible for and deserving of the requested findings.

If EPA insists upon the implementation of a Section 185 fee program in Connecticut, the practical effect is that of an economic sanction; there will be no air quality benefits. Furthermore, EPA's ozone modeling indicates that more than 80% of the ozone occurring in southwest Connecticut is transported by winds carrying precursor emissions originating in upwind states. Therefore, I urge you to expedite EPA's review and approval of this request so that Connecticut business and industry is not unduly disadvantaged yet again by upwind sources that have yet to contribute their fair share to regional air quality improvement. Doing so will also allow CT DEP to focus our constrained resources on implementation of EPA's reconsidered ozone NAAQS, expected to be finalized this summer. Please contact me at (860)-424-3026 if you have any questions concerning this request.

Sincerely,

Anne Gobin, Chief

Bureau of Air Management

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#### Enclosure

c: David Conroy (EPA Region 1) Anne Arnold (EPA Region 1) Paul Farrell (CTDEP)

# Request for Clean Ozone Data Determination and Clean Air Act Section 185 Fee Considerations for the Southwest Connecticut Portion of the NY/NJ/CT Nonattainment Area

# **Technical Support Document**



Connecticut Department of Environmental Protection
Bureau of Air Management

**April 2011** 

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#### **Executive Summary**

As a result of the combined efforts of the Environmental Protection Agency (EPA) and states to reduce emissions, improve air quality and protect public health, ozone air quality levels have been steadily improving across the Northeast. This improvement is a testament to the success of joint state-federal partnerships in the planning, adoption and implementation of emission reduction strategies. Ozone concentrations measured throughout the New York/New Jersey/Connecticut nonattainment area indicate attainment levels have been reached with respect to both the 1997 8-hour ozone national ambient air quality standard (NAAQS) of 0.08 parts per million (effectively measured as 84 parts per billion) and the 1-hour ozone NAAQS of 0.12 ppm (effectively measured as 124 ppb). Measured compliance with the 1997 8-hour ozone NAAQS first occurred in 2009, continuing through the 2010 ozone season. Measured compliance with the 1-hour ozone NAAQS first occurred in 2010.

Measured attainment is important for three reasons. First, these data qualify Southwest Connecticut for a "clean data" finding by EPA per 40CFR51.918. Second, consistent with EPA's January 5, 2010 Guidance on Developing Fee Programs Required by Clean Air Act Section 185 (Section 185 Fee Guidance), a "clean data" finding by EPA obviates the need for such a fee program in the Southwest Connecticut portion of the New York/New Jersey/Connecticut (NY/NJ/CT) 1-hour severe ozone nonattainment area. Third, these data support our ozone attainment demonstration state implementation plan (SIP) submitted to EPA in February 2008. Based on these measured attainment levels, CTDEP requests that EPA make a "clean data" finding for Connecticut, acknowledge that Connecticut is no longer obligated to develop a Section 185 fee program for Southwest Connecticut and withdraw the proposed disapproval of the attainment demonstration SIP for Southwest Connecticut.

The information needed by EPA to make a 40CFR51.918 "clean data" determination is summarized below and Table ES.1 and expanded upon in the remainder of this technical support document.

- CTDEP has certified and submitted the ambient ozone data measured through 2010. These data show that Connecticut's highest 8-hour ozone design values for 2009 and 2010 were 84 ppb and 81 ppb, respectively, both recorded in Danbury. The 2009 Danbury value was also the highest design value measured in the NY/NJ/CT nonattainment area, while the highest design value in that area for 2010 was 82 ppb, recorded in Babylon, NY. Thus, the NY/NJ/CT nonattainment area complies with the effective 1997 8-hour ozone NAAQS of 84 ppb and qualifies for a "clean data" determination.
- Similarly, Southwest Connecticut's highest 1-hour design values of 123 ppb in 2009 at
  Danbury and 120 ppb in 2010 at Greenwich demonstrate that Connecticut' portion of the
  NY/NJ/CT area is now attaining the effective 1-hour ozone NAAQS of 124 ppb that EPA
  revoked in 2005. Although one monitor in New York remained in violation of the 1-hour
  NAAQS in 2009, all sites throughout the NY/NJ/CT nonattainment area achieved attainment
  with that NAAQS in 2010, qualifying the area for a "clean data" determination for the 1-hour
  ozone NAAQS.
- The <u>Connecticut 8-hr Ozone Attainment Demonstration SIP</u> was submitted to EPA on February 1, 2008. <u>Section 4 of the SIP</u> documents that a wide range of Federal and state control measures have been adopted to reduce past and future NOx and VOC emissions from on-road and non-road mobiles sources, stationary point sources and area sources.

CTDEP estimates indicate that between the base year 2002 and 2009, these programs reduced NOx and VOC emissions by approximately 30% and 25%, respectively, providing the reductions needed to reach compliance with both the 8-hour and 1-hour ozone NAAQS. Adopted control programs are also projected to provide significant additional reductions through 2012 and beyond as our focus turns to achieving attainment of EPA's reconsidered ozone NAAQS, expected to be finalized this summer.

• The emission reductions produced by Federal and state control programs are reflected by the improving <u>trend</u> in 8-hour ozone air quality levels observed in Connecticut over the past three decades. The highest 8-hour design values in Connecticut have improved from 156 ppb in 1983, to 123 ppb in 1990, to 96 ppb in 2000 to 81 ppb in 2010.

EPA's Section 185 Fee Guidance indicates that after EPA determines an area is attaining either the 1-hour or 1997 8-hour ozone NAAQS, based on permanent and enforceable emissions reductions, the agency responsible for that area would no longer be obligated to submit a Section 185 fee program SIP revision. In such cases, an area's existing SIP should be considered an adequate alternative program.

Given that current design values in the NY/NJ/CT nonattainment area are in attainment with both the 1-hour and 1997 8-hour ozone NAAQS and the improvements in air quality are due to enforceable control programs, CTDEP hereby requests that EPA issue "clean data" determinations and acknowledge that Connecticut is no longer required to submit a Section 185 fee program for the Southwest Connecticut portion of the nonattainment area. Furthermore, CTDEP requests that EPA withdraw the proposed disapproval of the Southwest Connecticut 1997 8-Hour Ozone Attainment Demonstration.

Table ES.1. 2010 1-Hour and 8-Hour Ozone Design Values for NY-NJ-CT Nonattainment Area

		2010 8Hr	2010 1Hr Design
Site ID	Site Name	Design Value	Value
90010017	Greenwich	78	120
90011123	Danbury	81	116
90013007	Stratford	76	104
90019003	Westport	80	112
90070007	Middletown*	77	105
90090027	New Haven*	67	104
90093002	Madison*	76	101
340030006	Leonia	76	109
340170006	Bayonne	77	103
340190001	Flemington	78	101
340210005	Rider University	78	98
340230011	Rutgers University	78	105
340250005	Monmouth University	80	105
340273001	Chester	75	94
340290006	Colliers Mills	81	109
340315001	Ramapo	74	92
360050110	IS52	67	96
360270007	Millbrook	75	97
360715001	Valley Central	73	98
360790005	Mt Ninham	75	102
360810124	Queens	74	102
360850067	Susan Wagner	77	102
361030002	Babylon	82	109
361030004	Riverhead	76	102
361030009	Holtsville	79	97
361192004	White Plains	77	104

\*Only a part of the 1Hr Nonattainment Area not the 8Hr.

### **Chapter 1: Introduction**

Federal and state emission control programs have produced significant improvements in monitored ozone levels in Connecticut and other states over the last three decades. As a result, monitored ozone design values throughout the New York/New Jersey/Southwest Connecticut (NY-NJ-CT) ozone nonattainment areas now show attainment with both the 1997 8-hour ozone and the previously revoked 1-hour ozone National Ambient Air Quality Standards (NAAQS).

As indicated in 40 CFR 51.198, EPA is authorized to make a determination that an area designated nonattainment for the 8-hour ozone NAAQS has attained the standard based on measured air quality data that meets the NAAQS. Under the provisions of EPA's ozone implementation rule, the requirements for an area to submit an attainment demonstration, a reasonable further progress plan, contingency measures, and other planning State Implementation Plans (SIPs) related to attainment of the 8-hour ozone NAAQS shall be suspended for so long as the area continues to attain the applicable ozone NAAQS. EPA has already finalized a determination of monitored attainment (also known as a "clean data" determination) for the Greater Connecticut moderate 8-hour ozone nonattainment area (75 FR 53219; August 31, 2010). As described in Chapter 2, monitored data from Southwest Connecticut, the New York City metro area and Northern New Jersey qualify the multi-state NY/NJ/CT moderate 8-hour ozone nonattainment area and for a similar clean data finding by EPA.

Section 185 of the Clean Air Act (CAA) requires states with areas classified as severe or extreme ozone nonattainment to establish a fee program to be implemented if the area does not attain the NAAQS by the required attainment date. The current fee adjusted pursuant to the CAA would be in excess of \$8,700 per ton of oxides of nitrogen (NOx) and volatile organic compounds (VOC) above baseline emission levels. Furthermore, the CAA does not specify how such fees must be used. As described in Chapter 2, the NY/NJ/CT severe 1-hour nonattainment area first measured attainment with the 1-hour NAAQS in 2010, after the 2007 attainment deadline; thus, the area (which includes Southwest Connecticut) was subject to the Section 185 fee program requirement. On January 5, 2010, EPA issued guidance<sup>2</sup> clarifying the agency's policy on satisfying the Section 185 requirement. EPA's guidance includes a description of acceptable equivalent alternatives to fee programs, including provisions for areas that are determined to be attaining either the 1-hour or 1997 8-hour ozone NAAQS, stating:

"EPA believes that for an area that we determine is attaining either the 1-hour or 1997 8-hour ozone NAAQS, based on permanent and enforceable emissions reductions, the area would no longer be obligated to submit a fee program SIP revision to satisfy the antibacksliding requirements associated with the transition from the 1-hour standard to the

8-hour NAAQS first occurred in 2009, prior to the June 2010 deadline.

<sup>&</sup>lt;sup>1</sup> Connecticut has submitted all required SIP elements to EPA for the Southwest Connecticut portion of the NY/NJ/CT 8-hour ozone nonattainment area. EPA subsequently proposed disapproval of the attainment demonstration (74 FR 21568; May 8, 2009), primarily asserting that insufficient evidence was provided to demonstrate that attainment would be achieved by the June 15, 2010 deadline. In the cover letter to this TSD, Connecticut requests that EPA withdraw the proposed disapproval because measured attainment of the 1997

<sup>&</sup>lt;sup>2</sup> "Guidance on Developing Fee Programs Required by Clean Air Act Section 185 for the 1-hour Ozone NAAQS"; Memo from Stephen D. Page (Director, EPA OAQPS) to EPA Regional Air Directors; January 5, 2010.

1997 8-hour standard. In such cases an area's existing SIP should be considered an adequate alternative program."

As documented below, current design values measured at monitors in Southwest Connecticut and the remainder of the NY/NJ/CT nonattainment area are in attainment with both the 1-hour and the 1997 8-hour ozone NAAQS. Furthermore, as described in Chapter 3, the improvements in peak ozone levels are due to permanent and enforceable emission reductions. Therefore, Connecticut requests that EPA issue a notice determining the Southwest Connecticut portion of the NY/NJ/CT area is attaining both the 1-hour and 1997 8-hour ozone NAAQS and, in accordance with EPA's CAA Section 185 guidance, is no longer subject to the CAA Section 185 fee requirement because the current SIPs are considered an adequate alternative program. Furthermore, Connecticut requests that EPA withdraw the proposed disapproval (74 FR 21568) of the 8-hour ozone nonattainment demonstration SIP for Southwest Connecticut.

# **Chapter 2: Air Quality Data**

#### 2.1 Air Quality Data for the 1-Hour Ozone NAAQS

In simplified terms, the 1-hour design value for a monitor is the 4<sup>th</sup>-highest daily 1-hour concentration measured over the most recent three ozone seasons. As shown in Figure 1, monitors in the Southwest Connecticut portion of the NY/NJ/CT severe 1-hour ozone nonattainment area first measured attainment<sup>3</sup> of the 1-hour NAAQS (effectively 124 ppb) in 2009, with continued compliance in 2010. Southwest Connecticut's maximum 1-hour 2010 design value was 120ppb at the Greenwich site (see Table 1). Design values for 2010 for all of the monitors in the NY/NJ/CT are displayed in Figure 2, showing measured attainment of the NAAQS at all locations.

Southwest Connecticut 1-Hour Ozone Design Values 150 140 Ozone Design Value (ppb) 130 120 Southwest Connecticut; Danbury 110 Greenwich Stratford Westport 1Hr NAAQS, 0.12ppm (124ppb) 100 2002 Year

Figure 1. Southwest Connecticut's 1-Hour Design Value Trends

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<sup>&</sup>lt;sup>3</sup> Attainment is determined as in accordance with 40 CFR 50 appendix H

Table 1. Southwest Connecticut's 1-Hour Design Values for 2007-2010 (Effective 1-hour NAAQS is 124 ppb)

Connecticut 1Hr Ozone Design Values								
Non-Attainment Area Site Name AQS ID 2007 2008 2009 2010								
	Danbury WCSU	09-001-1123	144	127	120	116		
NV N L CT Non Attainment Area	Greenwich Point Park	09-001-0017	128	128	123	120		
NY-NJ-CT Non-Attainment Area	Stratford Light House	09-001-3007	125	125	120	104		
	Westport Sherwood Island	09-001-9003	130	130	112	112		

106 CT-NY-NJ 1-hour Ozone 2010 Design Values Stafford Providence 103 Windham Cornwall East Hartford Wayne Kent 105 102 Middletown Valley Central New Haven Mt Ninham New Haven Madison White Plains Stratford Westport Riverhead Leonia 109 Chester Holtsville 105 Susan Wagner Flemington Rutgers University Bucks **Monmouth University** Rider University NY-NJ-CT 1-hour Nonattainment Area 109 Greater CT 1-hour Nonattainment Area State-loaded AQS data, not yet certified (April 20, 2011) Colliers Mills

Figure 2. NY-NJ-CT 1-Hour Ozone Design Values for 2010

#### 2.2 Air Quality Data for the 1997 8-Hour Ozone Standard

In addition, monitored air quality data for 2009 and 2010 demonstrates attainment of the 1997 8-hour ozone standard. Figure 3 displays the 8-Hr design values for the monitors of Southwest Connecticut for the period 1983-2010. The steadily declining values indicated on the figure coincide with the implementation of the various mobile and stationary source air pollution control strategies described in Chapter 3. The 8-hour design value is the three-year average of the 4<sup>th</sup> high of the daily maximum 8-hour values. Recent design values are also summarized in Table 2.

The 2010 8-hour design values for the NY/NJ/CT 8-hour nonattainment area are displayed in Figure 4. All monitors in the nonattainment area recorded 2010 design values that attain the 84 ppb NAAQS. The maximum 2010 design value for the area of 82ppb occurred at the Babylon, NY site.

Figure 3. 8-Hour Ozone Design Values for Southwest Connecticut Monitors

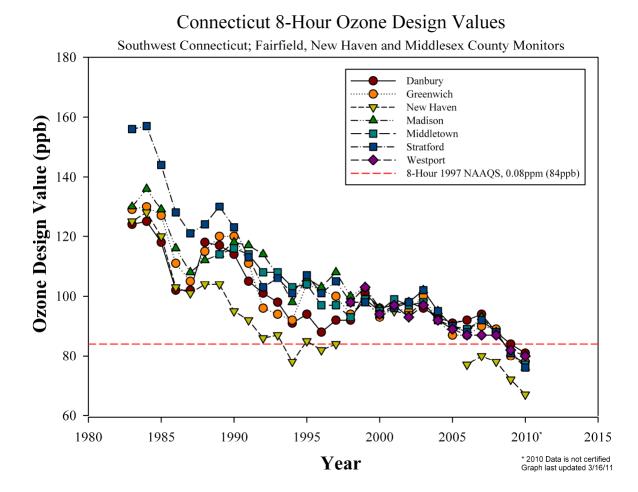


Table 2. Southwest Connecticut's 8-Hour Values for 2007-2010 (Effective 1997 8-hour NAAQS is 84 ppb)

Southwest Connecticut 8Hr Ozone Design Values									
		4th Highest Daily 8Hr Max Design Values (3 Year Average				· Average)			
Site Name	AQS ID	2006	2007	2008	2009	2010	2006-2008	2007-2009	2008-2010
Danbury WCSU	09-001-1123	87	92	86	74	84	88	84	81
Greenwich Point Park	09-001-0017	97	84	88	68	79	89	80	78
Stratford Light House	09-001-3007	95	92	78	73	79	88	81	76
Westport Sherwood Island	09-001-9003	89	83	90	73	79	87	82	80
Madison Hammonasset State Park	09-009-3002	95	93	78	73	79	88	81	76
Middletown CHV	09-007-0007	89	93	82	70	81	88	81	77
New Haven Criscuolo Park	09-009-0027	79	82	74	61	68	78	72	67

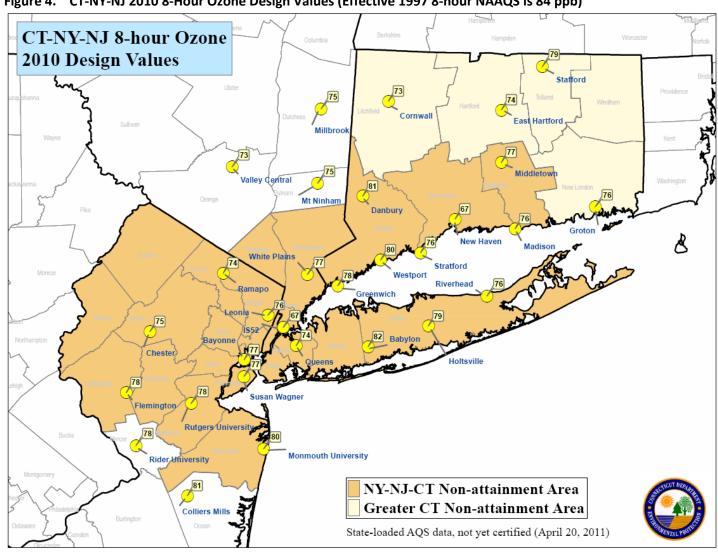


Figure 4. CT-NY-NJ 2010 8-Hour Ozone Design Values (Effective 1997 8-hour NAAQS is 84 ppb)

## **Chapter 3: Permanent and Enforceable Emission Reductions**

The ozone air quality improvements described above result from permanent and enforceable emission reductions secured both in Connecticut and throughout the remainder of the NY/NJ/CT ozone nonattainment area, as well as areas further upwind. The following sections discuss emission estimates for the NY/NJ/CT ozone nonattainment area and the associated control measures that have been implemented in the Connecticut portion of the area.

#### 3.1 Emission Estimates

This section summarizes the 2002 and 2009 estimated anthropogenic VOC and NOx emissions for the NY/NJ/CT 8-hour ozone nonattainment area, and provides an analysis of the emission reductions achieved over this period. The data presented below are tons per summer day (TPSD) emission estimates taken from each state's 8-hour ozone attainment demonstration SIP submittal as follows:

- 1. Connecticut's emissions were obtained from Chapter 4, "Base and Future Year Emission Estimates, "of the state's February 1, 2008 attainment demonstration.
- 2. New Jersey's emissions were obtained from Chapter 6, "Reasonable Further Progress," of the state's October 29, 2007 attainment demonstration.
- 3. New York's emissions were obtained from Section 4, "Emission Inventories," of the state's February 8, 2008 attainment demonstration. New York did not include emission estimates for 2009. Therefore, 2009 estimates were made by interpolating between the 2008 and the 2011 emission estimates.

Table 3 and Table 4 show the VOC and NOx emissions (TPSD) for 2002 for each state's portion of the NY/NJ/CT 8-hour ozone nonattainment area.

Table 3. 2002 VOC Emission Estimates for the NY/NJ/CT ozone nonattainment area

Sector	CT portion	NY portion	NJ portion	Total
	{tons/day}	{tons/day}	{tons/day}	{tons/day}
Point	11.3	13.9	68.2	93.4
Area	84.1	461.3	243.5	788.9
On-road	48.3	236.8	183.0	468.1
Non-road	66.0	283.5	121.6	471.1
Total	209.7	995.5	616.3	1,821.5

Table 4. 2002 NOx Emissions for the NY/NJ/CT ozone nonattainment area

Sector	CT portion	NY portion	NJ portion	Total
	{tons/day}	{tons/day}	{tons/day}	{tons/day}
Point	37.7	168.5	152.7	358.9
Area	7.2	78.3	24.4	109.9
On-road	102.7	327.3	378.9	808.9
Non-road	38.7	178.5	161.0	378.2
Total	186.3	752.6	717.0	1,655.9

Table 5 and Table 6 show the emission projections for 2009 for the NY/NJ/CT 8-hour ozone nonattainment area. As noted above, New York's 2009 TPSD emission estimates were obtained by interpolating between the values that were available for 2008 and 2011.

Table 5. 2009 VOC Emissions for the NY/NJ/CT 8-hour ozone nonattainment area

Sector	CT portion	NY portion	NJ portion	Total
	{tons/day}	{tons/day}	{tons/day}	{tons/day}
Point	11.8	15.9	48.9	76.6
Area	69.4	403.8	210.8	684.0
On-road	27.4	139.6	79.0	246.0
Non-road	47.6	207.2	82.2	337.0
Total	156.2	766.5	420.9	1,343.6

Table 6. 2009 NOx Emissions for the NY/NJ/CT 8-hour ozone nonattainment area

Sector	CT portion	NY portion	NJ portion	Total
	{tons/day}	{tons/day}	{tons/day}	{tons/day}
Point*	36.5	174.2	53.8	264.5
Area*	7.4	76.8	22.0	106.2
On-road	54.6	195.8	133.5	383.9
Non-road	33.0	157.6	117.1	307.7
Total	131.5	604.4	326.5	1,062.3

<sup>\* 2009</sup> NOx emissions for Connecticut's portion of the nonattainment area were adjusted upwards from those in the attainment SIP by 0.9 tons/day for point sources and 0.8 tons/day for area sources because Connecticut has not adopted the OTC model rule for industrial and commercial boilers.

Table 7 provides a summary of the emission reductions estimated to occur by sector in the NY/NJ/CT 8-hour ozone nonattainment area between 2002 and 2009.

Table 7. Summary of Emission Reductions between 2002 and 2009

,	20	02	20	009	20	009
Sector	voc	NOx	VOC	NOx	% Reduction, VOC	% Reduction, NOx
Point	93.4	358.9	76.6	264.5	18.0%	26.3%
Area	788.9	109.9	684.0	106.2	13.3%	3.4%
On-road	468.1	808.9	246.0	383.9	47.4%	52.5%
Non-road	471.1	378.2	337.0	307.7	28.5%	18.6%
Total	1,821.5	1,655.9	1,343.6	1,062.3	26.2%	35.8%

Between 2002 and 2009, anthropogenic VOC emissions decreased by an estimated 26%, and NOx emissions decreased by an estimated 36% in the NY/NJ/CT 8-hour ozone nonattainment area as a result of adopted control strategies.

#### 3.2 Permanent and Enforceable Control Measures

The emission reductions outlined above are the result of permanent and enforceable control measures. Numerous federal measures and state-adopted control strategies have been implemented in the NY/NJ/CT 8-hour ozone nonattainment area. Table 8 lists federal regulations and Table 9 lists regulations adopted by Connecticut that have led to emission reductions in the Connecticut portion of the NY/NJ/CT area. Each table indicates the name of the measure, the adoption date and the implementation year.

**Table 8. Federal Regulations** 

<u>Federal Control Program</u>	Federal Register Reference	Rule Effective Date	Implementation Phase-In Period / Initial Year of Implementation
Non-Road Compression Ignition (diesel) Engines			
Tier 1: Land-Based Diesel Engines > 50 hp	59 FR 31306	06/17/1994	1996-2000
Tier 1: Small Diesel Engines < 50 hp	63 FR 56968	10/23/1998	1999-2000
Tier 2: Diesel Engines (all sizes)	63 FR 56968	10/23/1998	2001-2006
Tier 3: Diesel Engines 50 - 750 hp	63 FR 56968	10/23/1998	2006-2008
Tier 4: All Diesel Engines (Except locomotive and marine vessels)	69 FR 38958	06/29/2004	2008-2015
Non-Road Spark Ignition (e.g. gasoline) Engines			
Phase 1: SI Engines < 25 hp (except marine and recreational)	60 FR 34581	07/03/1995	1997
Phase 2: Non-handheld SI Engines < 25 hp	64 FR 15208	03/30/1999	2001-2007
Phase 2: Handheld SI < 25 hp	65 FR 24268	04/25/2000	2002-2007
Gasoline SI Marine Engines (outboard & personal watercraft)	61 FR 52088	10/04/1996	1998-2000
Large Spark-Ignition Engines > 19 kW (or > 25 hp)	67 FR 68242	11/08/2002	2004/2007
Recreational Land-Based Spark-Ignition Engines	67 FR 68242	11/08/2002	2006-2012
Spark-Ignition Engines, Equipment, and Vessels Rule	72 FR 28098	05/18/2007	2009, 2011-2012
Marine Diesel Engines & Locomotives			
MARPOL: New/Old Engines on Vessels Constructed Starting	MARPOL (Annex VI of International Convention on Prevention of		
1/1/2000	Pollution from Ships)	09/27/1997	2000
Commercial Marine Diesel Engines (US-flagged vessels)	64 FR 73300	12/29/1999	2004/2007
Recreational Marine Diesel Engines > 37 kW (or > 50 hp)	67 FR 68242	11/08/2002	2006-2009
Marine Diesel Engines (US-Flagged Vessels) > 30 liters/cylinder	68 FR 9746	02/28/2003	2004
New & Remanufactured Locomotives and Locomotive Engines	63 FR 18978	04/16/1998	Tier 0: 1973-2001 Tier 1: 2002-2004 Tier 2: 2005+
Locomotives Engines and Marine Compression-Ignition Engines <			
30 liters/cylinder	72 FR 15938	04/03/2007	2008-2015
Non-Road Diesel Fuel	69 FR 38958	06/29/2004	2007/2010
Aircraft			
Control of Air Pollution From Aircraft and Aircraft Engines 1	62 FR 25356	05/08/1997	1997
Control of Air Pollution From Aircraft and Aircraft Engines 2	70 FR 69664	11/17/2005	2005
On-Road Mobile Sources Control Strategies			
Reformulated Gasoline - Phase I	56 FR 66444	12/23/1991	1995
Reformulated Gasoline - Phase II	59 FR 7716	02/16/1994	2000
Tier 1 Motor Vehicle Controls	56 FR 25724	06/05/1991	1994
National Low Emission Vehicle Program	62 FR 44754	03/02/1998	1998
Tier 2 Motor Vehicle Controls/Low Sulfur Gasoline	65 FR 6697	02/10/2000	2004-2008
On-Board Refueling Vapor Recovery	59 FR 16262	04/06/1994	1997-2005
Heavy-Duty Diesel Vehicle Controls and Fuels	65 FR 59895	10/06/2000	2004-2005
Heavy-Duty Engine and Vehicle Standards and Highway Diesel			
Fuel; Sulfur Control Requirements	66 FR 5001	01/18/2001	2006-2007
Control of Emissions from Highway Motorcycles	69 FR 2397	01/15/2004	2006-2010
Mobile Source Air Toxics Rule		03/29/2001	2002
Control of Hazardous Air Pollutants		02/26/2007	2009-2015
Renewable Fuel Standard Program		05/01/2007	2006, 2007-2012
Stationary Sources			
Consumer Products	63 FR 48819	09/11/1998	1999
Architectural & Industrial Maintenance Coatings	63 FR 48848	09/11/1998	2000
Autobody Refinishing VOC Limits	63 FR 48806	09/11/1998	1999

**Table 9. Connecticut Regulations** 

<u>Regulation</u>	Citation	Adoption Date of Rule or Most Recent Amendment	Date Requirements Apply to Create Emissions Reductions
Standards for Municipal Waste Combustion	22a-174-38	10/26/2000	5/1/2003
Stage II Vapor Recovery - Gasoline Service Station Pressure Vent Valves	22a-174-30	05/10/2004	5/10/2005
Automotive Refinishing Operations	22a-174-3b(d)	04/04/2006	4/4/2006
Design Improvements for Portable Fuel Containers	22a-174-43	01/29/2007	7/1/2007
Reduced Vapor Pressure Limitation for Solvent Cleaning	22a-174-20(I)	07/26/2007	5/1/2008
CAIR NOx Ozone Season Trading Program	22a-174-22c	09/04/2007	5/1/2009
VOC Content Limits for Architectural and Industrial Maintenance Coatings	22a-174-41	7/26/2007	5/1/2008
Restrictions on Asphalt in Paving Operations	22a-174-20(k)	12/29/2008	5/1/2009
VOC Content Limits for Consumer Products	22a-174-40	07/26/2007	1/1/2009
Restrictions on the Manufacture and Use of Adhesives and Sealants	22a-174-44	10/3/2008	1/1/2009
Industrial Cleaning Solvents	22a-174-20(ii)	04/06/2010	1/1/2011
Offeset Lithographic Printing and Letterpress Printing	22a-174-20(gg)	04/06/2010	1/1/2011
Flexible Package Printing	22a-174-20(ff)	04/06/2010	1/1/2011
Paper, Film and Foil Coatings	22a-174-20(q)	04/06/2010	1/1/2011
Large Appliance Coatings	22a-174-20(hh)	04/06/2010	1/1/2011
Metal Furniture Coatings	22a-174-20(p)	04/06/2010	1/1/2011
California Low Emission Vehicle Phase 2 (CALEV2)	22a-174-36(b)	08/10/2009	2009+
Enhanced I/M (ASM 2525 phase-in cutpoints)	22a-174-27	03/10/1999	2000
Enhanced I/M (ASM 2525 final cutpoints	22a-174-27	10/27/2000	2004
OBD-II Enhanced I/M	22a-174-27	08/25/2004	2004
Stage I Vapor Recovery at Gasoline Service Stations	22a-174-30	10/18/1991	1999
Stage II Vapor Recovery at Gasoline Service Stations	22a-174-30	12/17/1993	1994
VOC RACT	22a-174-32	03/21/1984	1984
Gasoline Loading Racks: Increased Rule Effectiveness	22a-174-20(b)	10/24/1997	1998
CT NOx RACT Regulation	22a-174-22	4/29/1994	5/31/1995
CT NOx RACT Regulation: adoption of non-ozone season NOx limits	22a-174-22	12/28/2000	10/1/2003
OTC Phase II NOx Controls	22a-174-22b	09/28/1999	1999
NOx Budget Program (EPA NOx SIP Call)	22a-174-22b	12/28/2000	2003

#### **Chapter 4 - Requested EPA Action**

Based on the combined efforts of the EPA, Connecticut, New York, New Jersey and other states to reduce ozone precursor emissions, improve air quality and protect public health, ozone air quality levels have been steadily improving across the Northeast. This improvement reflects well upon our joint state-federal partnership in the planning, adoption and implementation of air pollution reduction strategies. The resulting ozone concentrations measured throughout all of Connecticut and the remainder of the NY/NJ/CT nonattainment area indicate attainment levels have been reached with respect to the 1997 8-hour ozone NAAQS of 0.08 ppm (measured as 84 ppb) and the 1997 1-hour ozone NAAQS of 0.12 ppm (measured as 124 ppb).

Based on these measured attainment levels and the permanent and enforceable control strategies that have led to the improvements in ozone air quality, the Connecticut Department of Environmental Protection requests EPA:

- Promulgate a "clean data" finding for Southwest Connecticut (and the remainder of the NY/NJ/CT nonattainment area) for the 1-hour and 1997 8-hour NAAQS and for Greater Connecticut for the 1-hour NAAQS;
- Acknowledge that Connecticut is no longer obligated to develop a Section 185 fee program for Southwest Connecticut; and
- Withdraw the proposed disapproval of the attainment demonstration SIP for Southwest Connecticut.