



ANDREW M. CUOMO
GOVERNOR

JOE MARTENS
COMMISSIONER

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233-1010

OCT -2 2013

Ms. Judith A. Enck
Regional Administrator
U.S. Environmental Protection Agency, Region 2
290 Broadway 26th Floor
New York, New York 10007-1866

Dear Administrator Enck:

On December 14, 2012, the EPA announced its revisions to the National Ambient Air Quality Standards (NAAQS) for particulate matter (PM). In this action, EPA revised the primary annual fine particulate matter (PM_{2.5}) standard to 12.0 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) from 15.0 $\mu\text{g}/\text{m}^3$. We commend EPA on strengthening the primary annual PM_{2.5} standard as a means to protect human health. Pursuant to guidance issued by EPA,¹ I am submitting New York State's designation recommendations on behalf of Governor Cuomo.

Based on a review of statewide monitoring data, DEC is recommending that the entirety of the state be designated as attainment for the revised annual PM_{2.5} NAAQS. The 2012 design values (based on 2010 – 2012 monitoring data) are presented in an enclosed table. Also enclosed are the design values from the portions of Connecticut and New Jersey that are part of the New York-Northern New Jersey-Long Island, NY-NJ-CT metropolitan area. The highest design value in New York State or the tri-state metropolitan area occurred at PS 19 in New York County, with a three-year average of 11.8 $\mu\text{g}/\text{m}^3$.

While the 2012 annual average for the IS 52 monitor in Bronx County is recorded in EPA's Air Quality System as 13.9 $\mu\text{g}/\text{m}^3$, it is a misleading value based on poor data substitution practices. Operation of the IS 52 monitor was halted for approximately two years due to extensive construction at the school; it recommenced sampling on June 29, 2012, recording a single value (21.9 $\mu\text{g}/\text{m}^3$) at the end of the second quarter. This value was erroneously used as the second quarter average and, combined with the much lower third and fourth quarter averages (9.5 $\mu\text{g}/\text{m}^3$ and 10.5 $\mu\text{g}/\text{m}^3$, respectively), resulted in an inflated annual average. Although the monitor still does not satisfy the data completeness requirements of 40 CFR Part 50 Appendix N, a 2012 annual average of 10.0 $\mu\text{g}/\text{m}^3$ has been included in the enclosed table as a better representation of the monitored values and of local ambient air quality.

¹ EPA memorandum from Gina McCarthy, Assistant Administrator, to Regional Administrators, "Initial Area Designations for the 2012 Revised Primary Annual Fine Particle National Ambient Air Quality Standard," April 16, 2013

On December 31, 2012, EPA issued a clean data finding for the New York-Northern New Jersey-Long Island, NY-NJ-CT nonattainment area for the 2006 24-hour PM_{2.5} NAAQS.² The tri-state metropolitan area, as well as the rest of New York State, continues to demonstrate compliance with this 35 µg/m³ standard. Tables containing 2012 design values in New York State and the Connecticut and New Jersey portions of the tri-state metropolitan area are enclosed. The highest 24-hour PM_{2.5} design value in New York State was 26 µg/m³ recorded at the PS 19 and Division Street monitors in New York County; the highest design value in the tri-state metropolitan area was 29 µg/m³ at a site adjacent to the New Jersey Turnpike.

The state remains in attainment of the 150 µg/m³ 24-hour PM₁₀ NAAQS. DEC has requested a clean data finding from EPA for this standard.³

As part of the June 27, 2013 request to redesignate the New York portion of the tri-state metropolitan area to attainment for the 1997 annual and 2006 24-hour PM_{2.5} NAAQS, DEC completed emissions projections for the New York portion of the tri-state area that predict significant reductions of PM and PM precursors between 2007 and 2025.^{4,5} These projections are presented in an enclosed chart. During this timeframe, emissions of sulfur dioxide (SO₂) and oxides of nitrogen (NO_x)—two of the primary precursors to particulate formation—are expected to decline by over 30 percent and 40 percent, respectively. While the precise levels of emission reductions will vary throughout the state, this trend is seen as a predictor of continuing attainment of the annual and 24-hour PM_{2.5} NAAQS. The Connecticut and New Jersey portions of the tri-state PM_{2.5} nonattainment area have also demonstrated declining PM_{2.5} ambient levels and emissions. EPA has approved New Jersey's and proposed approval of Connecticut's redesignation requests for the 1997 annual and 2006 24-hour PM_{2.5} NAAQS based on their continued compliance with these standards.^{6,7}

The downward trend in emissions in New York State is a direct result of the permanent and enforceable reductions that occur statewide from the many state and federal air quality regulations. Recent updates to several state regulations account for a portion of the projected emission reductions. Chief among these are updates to 6 NYCRR Subpart 227-2, which requires Reasonably Available Control Technology (RACT) for major combustion sources, and 6 NYCRR Subpart 225-1, which establishes sulfur-in-fuel limitations.

² 77 FR 76867, *Approval and Promulgation of Air Quality Implementation Plans; New York, New Jersey, and Connecticut; Determination of Attainment of the 2006 Fine Particle Standard*

³ Letter from Joseph Martens, DEC Commissioner, to Judith Enck, EPA Region 2 Administrator, January 14, 2013

⁴ <http://www.dec.ny.gov/chemical/92166.html>

⁵ The New York portion of the tri-state metropolitan area consists of the following counties: Bronx, Kings, Nassau, New York, Orange, Queens, Richmond, Rockland, Suffolk, and Westchester

⁶ 78 FR 54396, *Approval and Promulgation of Air Quality Implementation Plans; State of New Jersey; Redesignation of Areas for Air Quality Planning Purposes and Approval of the Associated Maintenance Plan*

⁷ 78 FR 43096, *Approval and Promulgation of Air Quality Implementation Plans; Connecticut; Redesignation of Connecticut Portion of the New York-New Jersey-Connecticut Nonattainment Area to Attainment of the 1997 Annual and 2006 24-Hour Standards for Fine Particulate Matter*

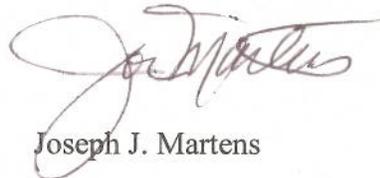
DEC has estimated that the Subpart 227-2 revisions, which strengthen NO_x limits on 766 boilers and 55 combined cycle combustion turbines beginning in 2014, will result in statewide reductions of about 28,800 tons of NO_x per year, or 78.9 tons per day, from 2007 levels. The Subpart 225-1 revisions primarily lower the sulfur-in-fuel limits for distillate and residual oils, and will result in an estimated statewide reduction of 97,800 tons of SO₂ per year, or 268.0 tons per day, when it is fully implemented in 2014.

DEC has also promulgated, and periodically updates, a number of regulations to control emissions of volatile organic compounds (VOCs) from various sources (e.g., architectural and industrial maintenance coatings, consumer products, surface coating processes, and adhesives, sealers, and primers). These VOC control programs primarily benefit ozone, but result in strong side-benefits for particulate formation. Periodically strengthened automobile emission standards and continuous vehicle turnover also greatly benefit statewide air quality, particularly in urban areas.

Additional near-road monitoring is required by the 2012 NAAQS revision. These monitors are being established in the major urban areas of New York State over the next few years. Once three years of data have been collected by these monitors, they could potentially factor into future revisions to the attainment designations.

If you have any questions regarding these recommendations, please contact David J. Shaw, Director of DEC's Division of Air Resources, at (518) 402-8452.

Sincerely,

A handwritten signature in dark ink, appearing to read "Joe Martens", is written over a printed name.

Joseph J. Martens

Enclosures

c: R. Ruvo, EPA
D. Shaw, DEC

2012 Annual PM_{2.5} Design Values in New York State

AQS ID	Monitoring Site	County	Annual Average (µg/m ³)			Design Value
			2010	2011	2012	
36-001-0005	Albany Co. Health Dept.	Albany	7.9	8.8	7.6	8.1
36-001-0012	Loudonville Reservoir	Albany	7.9	7.2	7.0	7.4 [^]
36-005-0080	Morrisania Center	Bronx	11.4	11.6	11.0	N/A*
36-005-0110	IS 52	Bronx	10.2	N/A	10.0	N/A*
36-005-0133	Botanical Garden	Bronx	10.0	10.0	9.5	9.8
36-013-0011	Westfield - Hardscrabble Rd	Chautauqua	7.5	7.3	7.6	7.5
36-029-0005	Buffalo - Dingens St	Erie	10.0	9.6	9.5	9.7
36-031-0003	Whiteface Lodge - Base	Essex	4.3	4.2	4.5	4.3 [^]
36-047-0122	JHS 126	Kings	9.9	10.3	9.7	10.0
36-055-1007	Rochester - Yarmouth Rd	Monroe	8.3	9.2	8.7	N/A*
36-061-0079	JHS 45	New York	9.8	10.4	9.0	9.7
36-061-0128	PS 19	New York	11.5	12.1	11.7	11.8
36-061-0134	Division Street	New York	11.5	12.0	11.0	11.5
36-063-2008	Niagara Falls - Frontier Ave	Niagara	8.3	8.1	8.1	N/A*
36-067-1015	E. Syracuse - Enterprise Pkwy	Onondaga	7.6	8.1	7.1	7.6
36-071-0002	Newburgh	Orange	8.1	8.6	7.8	8.2 [^]
36-081-0124	Queens College	Queens	9.4	9.3	8.5	9.1 [^]
36-085-0055	Port Richmond	Richmond	9.7	9.9	9.4	9.7 [^]
36-101-0003	Pinnacle State Park	Steuben	7.2	7.0	6.8	7.0 [^]
36-103-0002	Babylon	Suffolk	8.4	8.8	7.9	8.4

Values marked in red do not fulfill 75% quarterly data capture rate

* Monitor does not satisfy completeness criteria of 40 CFR Part 50 Appendix N

[^] Monitor has at least one quarter with data capture rate less than 75%, but at least 50%, and satisfies the "maximum quarterly value data substitution test" specified in 40 CFR Part 50 Appendix N Section 4.1(c)(ii)

2012 Annual PM_{2.5} Design Values in Connecticut and New Jersey

	AQS ID	Monitoring Site	County	Annual Average ($\mu\text{g}/\text{m}^3$)			Design Value
				2010	2011	2012	
Connecticut	09-001-0010	Roosevelt School Park Ave.	Fairfield	8.8	10.0	9.3	9.4
	09-001-1123	White St. at 8th Ave.	Fairfield	9.1	9.6	8.4	9.0
	09-001-3005	137 East Ave.	Fairfield	8.7	10.0	8.6	9.1[^]
	09-001-9003	Sherwood Island State Park	Fairfield	8.6	9.5	8.0	8.7
	09-009-0027	James St.	New Haven	8.9	10.0	8.3	9.1
	09-009-1123	715 State St.	New Haven	9.0	10.0	9.2	9.4
	09-009-2123	Bank St. at Meadow St.	New Haven	9.2	9.9	8.4	9.2
New Jersey	34-003-0003	Fort Lee Library - 320 Main St.	Bergen	8.8	9.8	8.9	9.2
	34-013-0003	360 Clinton Ave.	Essex	9.2	10.5	9.0	9.5
	34-017-1003	Consolidated Firehouse	Hudson	9.6	10.8	9.9	10.1
	34-017-2002	Health Dept. - 714 31st St.	Hudson	10.6	11.8	10.9	11.1
	34-021-0008	Trenton Library	Mercer	9.5	10.3	8.8	9.5
	34-021-8001	Washington Crossing St. Park	Mercer	8.1	8.4	7.9	8.2[^]
	34-023-0006	Cook College	Middlesex	7.4	8.3	8.3	8.0[^]
	34-027-0004	16 Early St.	Morris	8.5	8.7	7.9	8.4
	34-027-3001	Dept. Public Works Bldg #1	Morris	7.5	7.9	7.5	7.6
	34-031-0005	Health Dept. - 176 Broadway	Passaic	8.9	10.1	9.1	9.3[^]
	34-039-0004	NJ Turnpike Interchange 13	Union	10.6	12.2	10.7	11.2
	34-039-0006	Mitchell Bldg., 500 N Broad St.	Union	9.2	10.0	9.6	9.6[^]
	34-039-2003	Fire Dept. Bldg., 1300 Main St.	Union	9.3	10.1	9.7	9.7

This table features only the monitors included in the tri-state New York metropolitan area

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2012 24-Hour PM_{2.5} Design Values in New York State

AQS ID	Monitoring Site	County	98th Percentile Value (µg/m ³)			Design Value
			2010	2011	2012	
36-001-0005	Albany Co. Health Dept.	Albany	24.1	23.5	17.7	22
36-001-0012	Loudonville Reservoir	Albany	27.5	18.1	17.8	21 [^]
36-005-0080	Morrisania Center	Bronx	27.0	27.0	26.1	N/A*
36-005-0110	IS 52	Bronx	26.6	N/A	23.7	N/A*
36-005-0133	Botanical Garden	Bronx	24.8	23.0	25.1	24
36-013-0011	Westfield - Hardscrabble Rd	Chautauqua	23.5	21.6	19.5	22
36-029-0005	Buffalo - Dingens St	Erie	27.9	24.6	23.1	25
36-031-0003	Whiteface Lodge - Base	Essex	15.7	14.4	16.5	16 [^]
36-047-0122	JHS 126	Kings	24.8	24.3	22.1	24
36-055-1007	Rochester - Yarmouth Rd	Monroe	23.4	25.3	20.5	N/A*
36-061-0079	JHS 45	New York	25.2	25.2	21.3	24
36-061-0128	PS 19	New York	25.4	26.4	24.9	26
36-061-0134	Division Street	New York	27.0	26.8	24.0	26
36-063-2008	Niagara Falls - Frontier Ave	Niagara	24.8	19.9	20.2	N/A*
36-067-1015	E. Syracuse - Enterprise Pkwy	Onondaga	22.5	24.1	15.7	21
36-071-0002	Newburgh	Orange	26.5	20.8	20.2	23 [^]
36-081-0124	Queens College	Queens	25.5	24.7	20.5	24 [^]
36-085-0055	Port Richmond	Richmond	25.5	23.2	22.1	24 [^]
36-101-0003	Pinnacle State Park	Steuben	21.4	20.4	18.9	20 [^]
36-103-0002	Babylon	Suffolk	26.1	21.7	18.7	22

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2012 24-Hour PM_{2.5} Design Values in Connecticut and New Jersey

	AQS ID	Monitoring Site	County	98th Percentile Value (µg/m ³)			Design Value
				2010	2011	2012	
Connecticut	09-001-0010	Roosevelt School Park Ave.	Fairfield	23.3	23.7	21.5	23
	09-001-1123	White St. at 8th Ave.	Fairfield	25.7	24.8	21.6	24
	09-001-3005	137 East Ave.	Fairfield	23.0	25.2	22.5	24[^]
	09-001-9003	Sherwood Island State Park	Fairfield	24.2	28.7	19.5	24
	09-009-0027	James St.	New Haven	25.5	27.5	20.6	25
	09-009-1123	715 State St.	New Haven	23.9	26.6	22.0	24
	09-009-2123	Bank St. at Meadow St.	New Haven	25.7	24.3	20.6	24
New Jersey	34-003-0003	Fort Lee Library - 320 Main St.	Bergen	25.1	23.5	19.2	23
	34-013-0003	360 Clinton Ave.	Essex	24.0	23.9	21.5	23
	34-017-1003	Consolidated Firehouse	Hudson	25.9	28.2	24.1	26
	34-017-2002	Health Dept. - 714 31st St.	Hudson	26.7	25.7	24.6	26
	34-021-0008	Trenton Library	Mercer	26.9	27.7	20.5	25
	34-021-8001	Washington Crossing St. Park	Mercer	18.5	19.7	19.3	19[^]
	34-023-0006	Cook College	Middlesex	19.1	20.5	17.5	19[^]
	34-027-0004	16 Early St.	Morris	23.3	21.0	18.2	21
	34-027-3001	Dept. Public Works Bldg #1	Morris	22.7	24.4	16.2	21
	34-031-0005	Health Dept. - 176 Broadway	Passaic	24.4	25.4	21.4	24[^]
	34-039-0004	NJ Turnpike Interchange 13	Union	28.1	32.9	25.8	29
	34-039-0006	Mitchell Bldg., 500 N Broad St.	Union	25.1	21.5	25.1	24[^]
	34-039-2003	Fire Dept. Bldg., 1300 Main St.	Union	23.8	23.8	23.0	24

This table features only the monitors included in the tri-state New York metropolitan area

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Projected Emissions of PM and PM Precursors in the New York State Portion of the New York-N. New Jersey-Connecticut Nonattainment Area

