

# New York State Department of Environmental Conservation

## Division of Air Resources

625 Broadway, Albany, New York 12233-3250

Phone: (518) 402-8452 • Fax: (518) 402-9035

Website: [www.dec.ny.gov](http://www.dec.ny.gov)



Joe Martens  
Commissioner

FEB 27 2014

Mr. Richard Ruvo  
Chief, Air Programs Branch  
U.S. Environmental Protection Agency, Region 2  
290 Broadway, 25<sup>th</sup> Floor  
New York, NY 10007-1866

Dear Mr. Ruvo:

The purpose of this letter is to provide updated information regarding New York's "Redesignation Request and Maintenance Plan for the 1997 Annual and 2006 24-Hour PM<sub>2.5</sub> NAAQS: New York-Northern New Jersey-Long Island, NY-NJ-CT Nonattainment Area," as submitted to EPA on June 27, 2013.

It was discovered that the original inventory submitted with this document did not factor in control efficiencies for coarse particulate matter (PM<sub>10</sub>) on eight emission units: four units at Danskammer Generating Station in Orange County, two units at Roseton Generating Station in Orange County, and two units at Lovett Generating Station in Rockland County. Control efficiencies greatly affect how rule effectiveness is calculated pursuant to EPA guidance.

Enclosed with this letter are the corrected values for PM<sub>10</sub> in the 10-county New York metropolitan area. The first enclosed document, "Final PM<sub>10</sub> Data for the New York Metropolitan Area: 2007, 2017, 2025," provides the updated PM<sub>10</sub> values by county for the various source categories for the 2007 base year, 2017 interim projection year, and 2025 projection year inventories. This document was initially provided to Mr. Raymond Forde, et al., via email on February 24, 2014.

These updated PM<sub>10</sub> inventory tables served as a basis for the second enclosure – "Errata to New York State's PM<sub>2.5</sub> Redesignation Request and Maintenance Plan." It replicates Tables 8 through 13 and Figure 11 from the Redesignation Request/Maintenance Plan, with the corrected values for PM<sub>10</sub> inserted. All other values remain unchanged.

If you have any questions, please feel free to contact Mr. Scott Griffin at (518) 402-8396.

Sincerely,

David J. Shaw  
Director, Division of Air Resources

Enclosures

## Final PM10 Data for the New York Metropolitan Area: 2007, 2017, 2025

February 24, 2014

NYMA 2007 Annual PM10 Emissions by County (Tons)									
County FIPS	County	Point	Point w/RE	Area	Nonroad	Onroad	Road Dust	Total	Total w/RE
36005	Bronx	15.82	292.68	1,718.98	195.82	601.48	164.92	2,697.00	2,973.86
36047	Kings	73.39	87.22	2,978.16	530.83	924.64	278.41	4,785.43	4,799.25
36059	Nassau	241.14	241.14	4,945.76	364.82	1,809.88	337.03	7,698.63	7,698.63
36061	New York	98.18	98.18	5,693.88	755.88	938.82	411.16	7,897.92	7,897.92
36071	Orange	241.01	118,176.61	8,910.80	153.81	430.49	562.66	10,298.77	128,234.37
36081	Queens	358.17	359.64	4,266.59	528.15	1,565.09	423.45	7,141.45	7,142.92
36085	Richmond	25.54	25.54	1,607.56	238.03	344.34	137.85	2,353.33	2,353.33
36087	Rockland	211.37	4,018.68	1,582.52	105.89	304.79	94.42	2,298.98	6,106.29
36103	Suffolk	1,446.95	1,446.95	8,882.90	880.27	1,916.73	636.31	13,763.17	13,763.17
36119	Westchester	201.76	201.76	7,467.69	416.95	887.10	437.37	9,410.87	9,410.87
<b>Total</b>		<b>2,913.32</b>	<b>124,948.39</b>	<b>48,054.84</b>	<b>4,170.45</b>	<b>9,723.36</b>	<b>3,483.59</b>	<b>68,345.55</b>	<b>190,380.63</b>

NYMA 2017 Annual PM10 Emissions by County (Tons)									
County FIPS	County	Point	Point w/RE	Area	Nonroad	Onroad	Road Dust	Total	Total w/RE
36005	Bronx	16.66	293.49	1,402.04	123.56	419.63	144.08	2,105.97	2,382.79
36047	Kings	76.04	89.87	2,409.56	345.21	618.97	230.58	3,680.36	3,694.19
36059	Nassau	245.83	250.77	3,927.55	279.68	1,312.03	299.80	6,064.90	6,069.83
36061	New York	99.89	99.89	4,718.14	483.75	692.30	344.58	6,338.66	6,338.66
36071	Orange	239.94	118,174.79	4,175.30	117.69	321.21	409.44	5,263.58	123,198.43
36081	Queens	347.74	349.34	3,442.60	412.24	1,076.03	369.50	5,648.11	5,649.71
36085	Richmond	26.47	26.47	1,479.65	190.01	287.56	139.97	2,123.66	2,123.65
36087	Rockland	168.85	3,976.16	947.97	76.13	249.06	73.24	1,515.24	5,322.55
36103	Suffolk	1,457.25	1,471.75	8,355.72	681.25	1,489.99	639.60	12,623.81	12,638.31
36119	Westchester	203.58	203.58	3,448.23	331.25	705.06	308.68	4,996.79	4,996.79
<b>Total</b>		<b>2,882.25</b>	<b>124,936.11</b>	<b>34,306.76</b>	<b>3,040.77</b>	<b>7,171.83</b>	<b>2,959.46</b>	<b>50,361.08</b>	<b>172,414.93</b>

NYMA 2025 Annual PM10 Emissions by County (Tons)									
County FIPS	County	Point	Point w/RE	Area	Nonroad	Onroad	Road Dust	Total	Total w/RE
36005	Bronx	16.80	293.62	1,522.77	78.10	390.90	152.56	2,161.12	2,437.95
36047	Kings	77.41	91.25	2,582.15	246.33	561.48	235.48	3,702.85	3,716.69
36059	Nassau	246.97	251.92	4,395.36	242.16	1,278.26	325.29	6,488.04	6,493.00
36061	New York	99.98	99.98	5,246.71	332.11	671.70	368.84	6,719.35	6,719.35
36071	Orange	239.91	118,174.77	4,308.83	103.94	302.78	419.08	5,374.55	123,309.41
36081	Queens	347.92	349.52	3,919.96	374.18	967.46	400.46	6,009.98	6,011.59
36085	Richmond	27.30	27.30	1,808.53	169.22	296.39	166.83	2,468.27	2,468.27
36087	Rockland	168.91	3,976.22	1,008.05	62.70	255.33	78.18	1,573.16	5,380.47
36103	Suffolk	1,459.39	1,474.18	9,557.18	615.21	1,512.63	710.68	13,855.08	13,869.88
36119	Westchester	204.88	204.88	3,717.13	295.15	715.30	326.92	5,259.37	5,259.37
<b>Total</b>		<b>2,889.47</b>	<b>124,943.65</b>	<b>38,066.67</b>	<b>2,519.12</b>	<b>6,952.22</b>	<b>3,184.31</b>	<b>53,611.79</b>	<b>175,665.97</b>

## Errata to New York State's PM<sub>2.5</sub> Redesignation Request and Maintenance Plan

On February 24, 2014 the DEC submitted corrections to the PM<sub>10</sub> inventory to EPA Region 2.

This Errata contains the updated values for PM<sub>10</sub>, affecting Tables 8 through 13 and Figure 11 of the  
**REDESIGNATION REQUEST AND MAINTENANCE PLAN FOR THE 1997 ANNUAL AND 2006 24-HOUR PM<sub>2.5</sub> NAAQS:  
 NEW YORK-NORTHERN NEW JERSEY-LONG ISLAND, NY-NJ-CT NONATTAINMENT AREA**

Further information about these revisions is available upon request.

**Revised Table 8. NYMA 2007 Annual Emissions by County (Tons) w/ Rule Effectiveness**

County	VOC	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NH <sub>3</sub>
Bronx	15,047.66	16,072.26	63,427.45	2,973.86	1,296.29	2,028.00	273.71
Kings	28,662.51	29,076.44	124,999.42	4,799.25	2,383.33	4,181.63	433.64
Nassau	31,927.15	38,757.58	237,855.45	7,698.63	3,244.15	4,161.52	891.06
New York	24,969.47	38,674.46	156,401.62	7,897.92	3,256.44	8,379.15	573.40
Orange	10,047.89	16,401.52	74,321.45	128,234.37	120,451.70	17,457.67	1,258.36
Queens	31,752.34	49,624.79	182,710.39	7,142.92	3,331.36	7,175.21	766.23
Richmond	7,991.66	11,116.46	50,837.44	2,353.33	892.64	1,348.56	164.63
Rockland	6,773.37	10,861.11	50,646.73	6,106.29	5,254.22	8,090.90	333.66
Suffolk	44,149.39	53,819.10	309,309.17	13,763.17	5,630.24	23,161.04	1,142.61
Westchester	21,273.64	24,706.33	160,065.09	9,410.87	2,540.15	4,451.51	572.77
<b>Total</b>	<b>222,595.08</b>	<b>289,110.05</b>	<b>1,410,574.21</b>	<b>190,380.63</b>	<b>148,280.52</b>	<b>80,435.19</b>	<b>6,410.08</b>

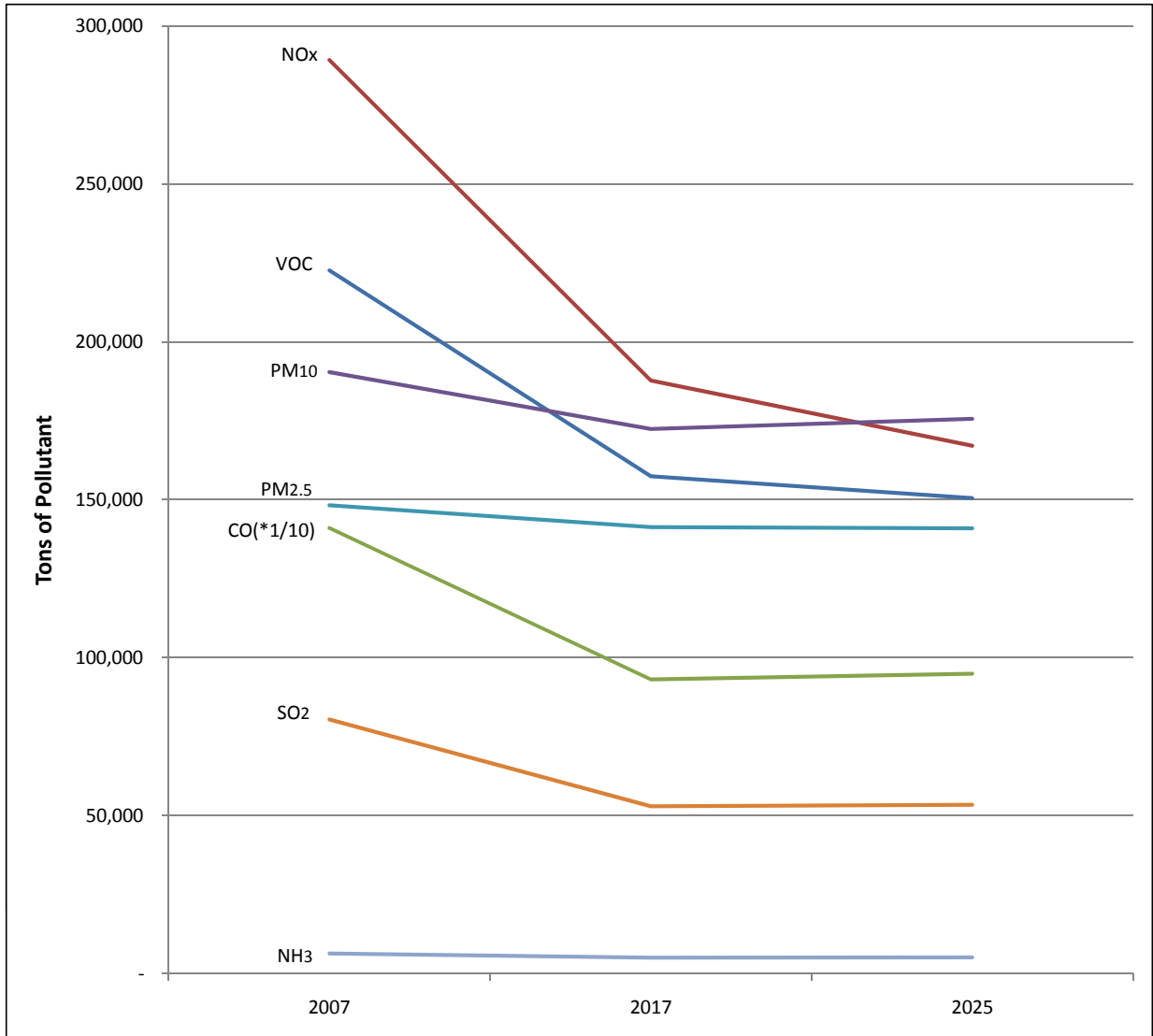
**Revised Table 9. NYMA 2017 Annual Emissions by County (Tons) w/ Rule Effectiveness**

County	VOC	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NH <sub>3</sub>
Bronx	12,112.80	9,460.93	39,905.03	2,382.79	924.91	570.10	195.23
Kings	22,317.71	17,925.67	78,895.41	3,694.19	1,722.45	1,876.27	298.05
Nassau	20,334.10	21,576.11	146,367.91	6,069.83	2,350.01	1,209.10	616.41
New York	17,709.12	25,740.64	112,483.64	6,338.66	2,446.43	3,964.15	445.78
Orange	7,217.53	11,847.65	47,941.66	123,198.43	119,826.95	15,718.83	1,208.67
Queens	23,583.06	34,838.52	113,502.89	5,649.71	2,461.80	5,085.91	573.19
Richmond	6,397.10	7,768.51	34,455.91	2,123.65	733.59	1,053.11	130.43
Rockland	4,527.46	7,633.39	34,380.00	5,322.55	4,434.51	7,312.84	288.18
Suffolk	28,745.40	35,245.65	214,435.45	12,638.31	4,821.86	15,478.61	939.13
Westchester	14,470.39	15,229.93	108,921.41	4,996.79	1,632.78	779.24	429.61
Tappan Zee Project	N/A	457.00	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>157,414.67</b>	<b>187,724.00</b>	<b>931,289.32</b>	<b>172,414.93</b>	<b>141,355.28</b>	<b>53,048.17</b>	<b>5,124.68</b>

**Revised Table 10. NYMA 2025 Annual Emissions by County (Tons) w/ Rule Effectiveness**

County	VOC	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NH <sub>3</sub>
Bronx	12,001.94	7,843.65	39,228.79	2,437.95	853.18	563.84	196.75
Kings	21,890.14	15,315.75	78,139.60	3,716.69	1,581.36	1,915.10	291.83
Nassau	18,782.44	18,286.53	146,242.98	6,493.00	2,308.79	1,235.89	622.02
New York	17,331.41	22,496.16	118,659.27	6,719.35	2,291.81	3,986.13	446.83
Orange	6,830.76	10,860.76	48,138.05	123,309.41	119,815.34	15,712.22	1,239.75
Queens	23,319.79	33,134.26	113,218.21	6,011.59	2,364.83	5,288.51	574.26
Richmond	6,391.30	7,085.86	35,661.72	2,468.27	768.78	1,113.59	139.63
Rockland	4,243.68	7,059.19	35,786.47	5,380.47	4,425.59	7,316.57	295.83
Suffolk	26,051.63	31,473.05	220,845.67	13,869.88	4,948.16	15,578.36	989.56
Westchester	13,657.59	13,592.12	113,243.94	5,259.37	1,605.61	810.39	445.12
<b>Total</b>	<b>150,500.68</b>	<b>167,147.34</b>	<b>949,164.70</b>	<b>175,665.97</b>	<b>140,963.45</b>	<b>53,520.61</b>	<b>5,241.57</b>

Revised Figure 11. Projected Emission Trends of PM and PM Precursors in the NYMA Through 2025



Revised Table 11. NYMA 2007 Base Year Inventory by Source Sector (Tons)

Sector	VOC	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NH <sub>3</sub>
Point	3,269.78	36,829.68	12,013.83	2,913.32	2,435.34	43,886.32	862.89
Point w/RE	3,707.01	38,195.94	13,137.41	124,948.39	124,750.31	43,886.32	862.89
Nonpoint	101,481.89	41,899.74	23,211.41	48,054.84	11,621.00	29,513.22	1,960.83
Nonroad	46,026.72	59,512.46	474,292.00	4,170.45	3,899.30	6,052.88	1.96
Onroad	71,379.46	149,501.91	899,933.39	9,723.36	6,835.30	982.77	3,584.40
Road Dust	N/A	N/A	N/A	3,483.59	1,174.60	N/A	N/A
<b>Total</b>	<b>222,157.85</b>	<b>287,743.79</b>	<b>1,409,450.63</b>	<b>68,345.55</b>	<b>25,965.55</b>	<b>80,435.19</b>	<b>6,410.08</b>
<b>Total w/RE</b>	<b>222,595.08</b>	<b>289,110.05</b>	<b>1,410,574.21</b>	<b>190,380.63</b>	<b>148,280.52</b>	<b>80,435.19</b>	<b>6,410.08</b>

Revised Table 12. NYMA 2017 Interim Projection Year Inventory by Source Sector (Tons)

Sector	VOC	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NH <sub>3</sub>
Point	3,242.86	35,729.48	12,269.28	2,882.25	2,417.29	43,484.27	867.60
Point w/RE	4,131.72	37,066.75	13,730.42	124,936.11	124,290.57	43,484.29	867.60
Nonpoint	93,790.95	36,640.38	22,438.48	34,306.76	9,403.95	4,412.25	1,915.00
Nonroad	26,408.16	45,197.21	392,576.80	3,040.77	2,809.06	4,212.42	1.12
Onroad	33,083.83	68,362.66	502,543.63	7,171.83	3,897.71	939.20	2,340.95
Road Dust	N/A	N/A	N/A	2,959.46	954.01	N/A	N/A
Tappan Zee Project	N/A	457.00	N/A	N/A	N/A	N/A	N/A
<b>Total</b>	<b>156,525.80</b>	<b>186,386.73</b>	<b>929,828.18</b>	<b>50,361.08</b>	<b>19,482.01</b>	<b>53,048.15</b>	<b>5,124.68</b>
<b>Total w/RE</b>	<b>157,414.67</b>	<b>187,724.00</b>	<b>931,289.32</b>	<b>172,414.93</b>	<b>141,355.28</b>	<b>53,048.17</b>	<b>5,124.68</b>

Revised Table 13. NYMA 2025 Projection Year Inventory by Source Sector (Tons)

Sector	VOC	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NH <sub>3</sub>
Point	3,261.75	36,306.85	12,455.94	2,889.47	2,423.51	43,591.03	872.33
Point w/RE	4,153.64	37,645.59	13,929.75	124,943.65	124,294.66	43,596.39	872.33
Nonpoint	94,698.56	35,467.73	22,764.61	38,066.67	10,126.70	4,389.48	1,924.66
Nonroad	24,737.31	42,773.21	430,459.94	2,519.12	2,290.95	4,599.34	1.05
Onroad	26,911.17	51,260.81	482,010.40	6,952.22	3,291.09	935.40	2,443.53
Road Dust	N/A	N/A	N/A	3,184.31	960.05	N/A	N/A
<b>Total</b>	<b>149,608.78</b>	<b>165,808.60</b>	<b>947,690.89</b>	<b>53,611.79</b>	<b>19,092.30</b>	<b>53,515.25</b>	<b>5,241.57</b>
<b>Total w/RE</b>	<b>150,500.68</b>	<b>167,147.34</b>	<b>949,164.70</b>	<b>175,665.97</b>	<b>140,963.45</b>	<b>53,520.61</b>	<b>5,241.57</b>