



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

JUNE 29, 2004

REPLY TO THE ATTENTION OF:

R-19J

Honorable Rod R. Blagojevich  
Governor of Illinois  
Springfield, Illinois

Dear Governor Blagojevich:

Fine-particle pollution represents one of the most significant barriers to clean air facing our nation today. These tiny particles - about 1/30<sup>th</sup> the diameter of a human hair - have been scientifically linked to serious human health problems. Their ability to be suspended in air for long periods of time makes them a public health threat far beyond the source of emissions. An important part of our nation's commitment to clean, healthy air deals with reducing levels of this fine-particle (PM<sub>2.5</sub>) pollution.

We have reviewed the March 5, 2004, letter from Renee Cipriano, Director, Illinois Environmental Protection Agency, submitting Illinois' recommendations on air quality designations for the PM<sub>2.5</sub> standard. We appreciate the effort the State has made to develop these recommendations. Consistent with the Clean Air Act, this letter is to notify you that, based upon the information contained in your submission and other available information, the Environmental Protection Agency (EPA) intends to make modifications to Illinois' recommended designations and boundaries.

Your Environmental Director will receive a copy of this letter with a more detailed enclosure containing a description of areas where EPA intends to modify your state recommendations, and the basis for such modification. Should you have additional information that you wish to be considered by the EPA in this process, we request that you provide it to us by September 1.

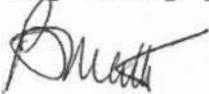
You will hear from us again in November when EPA takes the final step in the PM<sub>2.5</sub> designation process and determines those areas that are in attainment (or unclassifiable) and those areas that are nonattainment. For areas in attainment, the challenge will be not only to maintain, but also to continue the progress you have made toward clean air. It is a commitment to no backsliding

in your State's clean air status for fine particles. EPA will also issue a proposed fine particle implementation rule prior to final designations, which will allow you to proceed with planning to achieve clean air.

The Bush Administration is addressing fine particle pollution with a comprehensive national clean air strategy. This strategy includes EPA's recent rule to reduce pollution from nonroad diesel engines, and the proposed rule to reduce pollution from power plants in the Eastern United States. These two rules are important components of EPA's efforts to help States and localities meet the more protective national fine-particle and 8-hour ozone air quality standards. Together these rules will help all areas of the country achieve cleaner air.

If you have any questions, please do not hesitate to contact me. We look forward to a continued dialogue with you as we work together to implement the PM<sub>2.5</sub> standards.

Very truly yours,



Bharat Mathur,  
Acting Regional Administrator

Enclosure

cc: Renee Cipriano, Director  
Illinois Environmental Protection Agency

Lori Kaplan, Commissioner  
Indiana Department of Environmental Management

Steven Mahfood, Director  
Missouri Department of Natural Resources

P. Scott Hasset, Secretary  
Wisconsin Department of Natural Resources

**Review of Designations in Illinois  
For the Particulate Matter Air Quality Standard**

The following table identifies the individual areas and counties comprising those areas in Illinois that EPA intends to designate as nonattainment for the fine particulate matter ("PM<sub>2.5</sub>") air quality standard. Where EPA intends to include only part of a county in a nonattainment area, we have indicated the boundaries of the portion of the county that will be included. Following this table is a description of the data EPA examined and a discussion of each area and the basis for EPA's intended designations. EPA intends to designate as attainment/unclassifiable all other Illinois counties or parts thereof not identified in the table below.

<b>Area</b>	<b>Illinois Counties in Metropolitan Area</b>	<b>Illinois Recommended Nonattainment Counties</b>	<b>EPA's Intended Nonattainment Counties</b>
<b>Chicago-Gary-Kenosha, IL-IN-WI</b>	Cook Du Page Kane Lake Mc Henry Will Grundy Kendall De Kalb Kankakee	Cook Du Page Kane Lake Mc Henry Will Grundy: Aux Sable Township Goose Lake Township Kendall: Oswego Township	Cook Du Page Kane Lake Mc Henry Will Grundy: Aux Sable Township Goose Lake Township Kendall: Oswego Township
<b>Saint Louis, MO-IL</b>	Madison Monroe St Clair Clinton Jersey	Madison Monroe St Clair	Madison Monroe St Clair Randolph

## An Explanation of EPA's 9-Factor Analysis

### **Factor 1. Emissions in areas potentially included versus excluded from the nonattainment area:**

The analysis for factor 1 looks at emissions of carbonaceous particles (carbon), inorganic particles (crustal), SO<sub>2</sub>, and NO<sub>x</sub>. EPA computed a composite emission score for each county by multiplying the county's emissions as a fraction of the metropolitan area emissions for each of these pollutants times a corresponding air quality weighting factor. These scores for the metropolitan area counties add to 100. The air quality weighting factors for each area are given below and reflect the percentages of the total estimated "urban excess" value found as carbonaceous particles, miscellaneous inorganic particles (crustal material), ammonium sulfate, and ammonium nitrate. Tables presented under factor 1 provide the carbonaceous particles, inorganic particles, SO<sub>2</sub>, and NO<sub>x</sub> emissions and the composite emission scores for the counties in the corresponding metropolitan area and adjacent counties. Emissions data are derived from the National Emissions Inventory and are for 2001, given in tons per year. Metropolitan area counties are in **bold**. Emissions data indicate the potential for a county to contribute to observed violations, often making the emissions data the most important factor in assessing boundaries of nonattainment areas.

"Urban excess" values are derived by comparing urban monitored component concentrations against rural monitored component concentrations. Concentrations of the four PM<sub>2.5</sub> components are obtained from local data if available (or, if necessary, from the nearest available urban site), and are compared to available rural concentrations. The monitoring sites used for this purpose are identified below. Although this information is air quality information, it is presented under Factor 1 due to its integration into the analysis of emissions information.

### **Factor 2. Air quality in potentially included versus excluded areas:**

The air quality analysis looks at the annual averaged design value for each area based on data for 2001 to 2003. Counties without monitors are not listed.

### **Factor 3. Population density and degree of urbanization including commercial development in included versus excluded areas:**

Tables presented under factor 3 show the 2003 population for each metropolitan area, as well as the population density for each county in that area. Population data indicate the likelihood of population-based emissions that might contribute to violations.

**Factor 4. Traffic and commuting patterns:**

*The traffic and commuting analysis looks at the number of commuters in each county who drive to another county within the metropolitan area ("Number"), the percent of total commuters in each county who commute to other counties within the metropolitan area ("percent"), as well as the total Vehicle Miles Traveled (VMT) for each county in thousands of miles. A county with numerous commuters is generally an integral part of the area, and would be an appropriate part of the domain of some mobile source strategies, thus warranting inclusion in the nonattainment area.*

*Note that the percent of commuters traveling to counties within the metropolitan area is based on the total number of commuters from that county. This total includes commuters who may travel outside the metropolitan area from their county of origin.*

**Factor 5. Expected growth:**

*The expected growth analysis looks at the percent growth for counties in each metropolitan area from 1990 to 2000.*

**Factor 6. Meteorology:**

*The meteorology analysis looks at wind data gathered over a ten year period by the National Weather Service. Tables presented under factor 6 list the year round average prevailing wind directions by quadrant for each county in the corresponding metropolitan area. These data show that annual average  $PM_{2.5}$  concentrations are influenced by emissions in any direction at various times, but these data may also suggest that emissions in some directions relative to the violation may be more prone to contribute than emissions in other directions.*

**Factor 7. Geography/topography:**

*The geography/topography analysis looks at physical features of the land that might have an effect on the airshed, and therefore, the distribution of particulate matter over an area. The State of Illinois has no features that significantly influenced EPA's recommended nonattainment areas.*

**Factor 8. Jurisdictional boundaries:**

*The analysis of jurisdictional boundaries looks at the planning and organizational structure of an area to determine if the implementation of controls in a potential nonattainment area can be carried out in a cohesive manner.*

**Factor 9. Level of control of emission sources:**

*The level of control analysis looks at what controls are currently implemented in each area.*

**9-Factor Analyses for the Illinois Portion of the Chicago-Gary-Kenosha, IL-IN-WI Metropolitan Area**

**Discussion:**

EPA reviewed the nine factors for the thirteen counties within the metropolitan area (including ten counties in Illinois) as well as all counties adjacent to the metropolitan area in order to determine the appropriate nonattainment area. There are violating monitors in Cook County and in Lake County, Indiana. EPA agrees with the Illinois EPA to include Cook, Du Page, Kane, Lake, Mc Henry, and Will counties, Aux Sable and Goose Lake Townships in Grundy County, and Oswego Township in Kendall County in the Chicago nonattainment area. The bulk of emissions and population are captured without including DeKalb, Grundy, Kankakee and Kendall Counties, since these counties have limited emissions and population. Nevertheless, we support the recommendation by the Illinois EPA to include the three townships in Grundy and Kendall counties in the nonattainment area to maintain consistency with the ozone designations and thereby facilitate planning.

There are eight Illinois counties adjacent to the metropolitan area, including Boone, Ford, Iroquois, LaSalle, Lee, Livingston, Ogle, and Winnebago Counties. Emissions are relatively low for these counties, and no other factor warranted designating these counties nonattainment. Therefore, the following data summaries for factors 3 through 9 do not address these counties.

**Factor 1. Emissions in areas potentially included versus excluded from the nonattainment area:**

<u>County</u>	<u>SOx</u>	<u>NOx</u>	<u>Carbon</u>	<u>Crustal</u>	<u>Composite emissions score</u>
Cook	61,676	195,428	10,110	8,268	33.0
De Kalb	445	4,885	384	1,875	1.0
Du Page	2,990	29,479	1,731	1,229	4.9
Grundy	6,149	9,589	563	1,235	2.1
Kane	1,395	9,490	1,047	2,326	2.8
Kankakee	551	6,628	490	1,720	1.4
Kendall	292	2,941	265	961	0.7
Lake	14,223	24,488	2,092	1,777	6.7
Mc Henry	637	5,834	564	1,992	1.6
Will	80,847	37,518	1,447	4,120	11.7
Lake, IN	50,110	72,142	5,708	7,588	19.5

<b>Porter, IN</b>	<b>21,601</b>	<b>41,315</b>	<b>2,702</b>	<b>5,587</b>	<b>9.2</b>
<b>Kenosha, WI</b>	<b>33,122</b>	<b>27,469</b>	<b>770</b>	<b>1,236</b>	<b>5.4</b>
Boone	849	2,188	215	834	0.6
Ford	219	1,462	216	1,280	0.6
Iroquois	458	4,177	452	2,290	1.3
La Salle	2,140	13,984	845	3,352	2.5
Lee	3,978	4,793	345	1,722	1.3
Livingston	503	4,686	485	2,413	1.3
Ogle	672	4,985	335	1,536	1.1
Winnebago	1,100	10,496	656	1,405	1.9
Benton, IN	101	1,326	215	724	0.5
Berrien, IN	1,390	10,269	740	1,340	0.6
Jasper, IN	34,435	23,020	668	1,838	5.2
La Porte, IN	10,974	19,681	826	1,643	3.3
Newton, IN	89	1,321	160	642	0.4
Pulaski, IN	111	1,187	196	667	0.5
St Joseph, IN	2,850	13,690	1,482	1,825	4.0
Starke, IN	100	2,852	188	551	0.5
White, IN	188	2,495	292	1,185	0.8
Racine, WI	2,309	7,252	662	890	1.9
Walworth, WI	866	5,693	470	908	1.3

**Urban increment:**Total mass= 3.6  $\mu\text{g}/\text{m}^3$ 

25% sulfates; 8% nitrates; 65% carbon; 2% crustal.

Urban site= 170310076;

Rural site= BOND1 (Bondville)

**Factor 2. Air quality in potentially included versus excluded areas:**

<b>County</b>	<b>2001-2003 Design Value</b>
<b>Cook</b>	<b>17.3 <math>\mu\text{g}/\text{m}^3</math></b>
<b>Du Page</b>	<b>14.4 <math>\mu\text{g}/\text{m}^3</math></b>
<b>Kane</b>	<b>14.2 <math>\mu\text{g}/\text{m}^3</math></b>
<b>Lake</b>	<b>12.8 <math>\mu\text{g}/\text{m}^3</math></b>
<b>Mc Henry</b>	<b>12.7 <math>\mu\text{g}/\text{m}^3</math></b>
<b>Will</b>	<b>12.8 <math>\mu\text{g}/\text{m}^3</math></b>
<b>Lake, IN</b>	<b>17.7 <math>\mu\text{g}/\text{m}^3</math></b>
<b>Porter, IN</b>	<b>13.8 <math>\mu\text{g}/\text{m}^3</math></b>
<b>Kenosha, WI</b>	<b>11.7 <math>\mu\text{g}/\text{m}^3</math></b>
<b>La Porte</b>	<b>13.6 <math>\mu\text{g}/\text{m}^3</math></b>

La Salle	14.1 $\mu\text{g}/\text{m}^3$
Winnebago	13.6 $\mu\text{g}/\text{m}^3$
St Joseph, IN	14.3 $\mu\text{g}/\text{m}^3$
Berrien, MI	12.7 $\mu\text{g}/\text{m}^3$

**Factor 3. Population density and degree of urbanization including commercial development in included versus excluded areas:**

<u>County</u>	<u>2003 Population</u>	<u>Population Density</u>
Cook	5,377,507	5,684
De Kalb	91,561	144
Du Page	924,589	2,768
Grundy	38,839	92
Kane	443,041	850
Kankakee	104,657	154
Kendall	61,222	191
Lake	674,850	1,506
Mc Henry	277,710	460
Will	559,861	669
Lake, IN	487,016	980
Porter, IN	150,403	360
Kenosha, WI	154,433	566

**Factor 4. Traffic and commuting patterns:**

<u>County</u>	<u>County VMT</u>	<u>Percent</u>	<u>Number</u>
Cook	44,107,000	12	274,167
De Kalb	729,000	31	13,894
Du Page	6,609,000	40	186,686
Grundy	530,000	46	8,431
Kane	841,000	43	82,968
Kankakee	889,000	19	9,122
Kendall	278,000	67	19,070
Lake	3,549,000	32	100,810
Mc Henry	792,000	47	62,415
Will	2,136,000	55	131,834
Lake, IN	5,012,000	25	52,922
Porter, IN	1,680,000	36	25,819
Kenosha, WI	1,228,000	28	20,506

**Factor 5. Expected growth:**

<u>County</u>	<u>Percent growth 1990-2000</u>
Cook	5
De Kalb	14
Du Page	16
Grundy	16
Kane	27
Kankakee	8
Kendall	38
Lake	25
Mc Henry	42
Will	41
Lake, IN	2
Porter, IN	14
Kenosha, WI	17

**Factor 6. Meteorology:**

<u>County</u>	<u>Average percent of wind direction by quadrant</u>			
	<u>Northwest</u>	<u>Southwest</u>	<u>Southeast</u>	<u>Northeast</u>
Cook	26	37	16	21
De Kalb	27	34	19	21
Du Page	26	37	17	21
Grundy	26	36	17	21
Kane	26	35	18	21
Kankakee	25	38	17	19
Kendall	26	36	17	21
Lake	26	37	17	20
Mc Henry	28	32	19	20
Will	26	37	17	21
Lake, IN	25	38	17	19
Porter, IN	25	38	18	19
Kenosha, WI	28	35	18	20

**Factor 7. Geography/topography:**

The geography/topography analysis looks at physical features of the land that might have an effect on the airshed, and therefore, the distribution of particulate matter over an area. The State

of Illinois has no features that significantly influenced EPA's intended nonattainment areas.

**Factor 8. Jurisdictional boundaries:**

The Chicago Area Transportation Study (CATS) Policy Committee is the Metropolitan Planning Organization (MPO) for the northeastern Illinois region.

-source: CATS webpage, <http://www.catsmpo.com/>

The Illinois portion of the Chicago ozone nonattainment area consists of the following counties: Cook, Du Page, Kane, Lake, Mc Henry, Will, Aux Sable and Goose Lake Townships in Grundy County, and Oswego Township in Kendall County.

**Factor 9. Level of control of emission sources:**

The state provided no information about the level of control of emission sources for this area.

**9-Factor Analysis for the Saint Louis Metropolitan Area**

**Discussion:**

EPA reviewed the nine factors for the counties within the metropolitan area as well as counties adjacent to the metropolitan area in order to determine the appropriate nonattainment area. There are violating monitors in Madison and St. Clair counties as well as in the City of Saint Louis. EPA agrees with the Illinois EPA to include Madison, Monroe and St. Clair counties in the Illinois portion of the St. Louis nonattainment area.

Illinois recommended a designation of unclassified for a portion of Randolph County, specifically the township that contains the Baldwin power plant. EPA intends to designate Randolph County nonattainment as part of the Saint Louis nonattainment area. EPA notes that the Baldwin plant has recently reduced its emissions significantly. Illinois' submittal did not indicate whether these emission reductions are enforceable or how much potential exists for further emission reductions at this facility (e.g. through annual operation of NOx emission controls). Randolph County adjoins a county that is monitoring a violation of the standard, and the most significant emissions are located in the portion of the county closest to the violation. These emissions are located where winds would commonly blow the emissions toward the observed violations. Emissions are moderately high even after the recent reductions. EPA concludes that emissions are sufficient to contribute to violations in the Saint Louis area. Illinois did not provide adequate information to justify designating less than the full Randolph County nonattainment, but

Illinois may wish to provide further support for including just a portion of Randolph County in the Saint Louis nonattainment area.

There are 11 other Illinois counties adjacent to the Metropolitan area, namely Bond, Calhoun, Fayette, Greene, Macoupin, Marion, Montgomery, Morgan, Pike, Sangamon, and Washington Counties. Emissions for these counties are relatively low and no other factor warranted designating the adjacent counties nonattainment. Therefore, the following data summaries for factors 3 through 9 do not address these counties.

Besides Randolph County, Illinois also recommended a designation of unclassifiable for Jersey County, and recommended attainment for all other counties in the state that are not part of the recommended Saint Louis or Chicago nonattainment areas. EPA intends to promulgate a designation of attainment/unclassifiable for all counties that are not part of its intended Saint Louis or Chicago nonattainment areas.

**Factor 1. Emissions in areas potentially included versus excluded from the nonattainment area:**

<u>County</u>	<u>SOx</u>	<u>NOx</u>	<u>Carbon</u>	<u>Crustal</u>	<u>Composite emissions score</u>
Clinton	624	3,717	238	1,067	2.0
Jersey	246	1,755	165	544	1.2
Madison	69,938	37,593	1,563	4,425	16.8
Monroe	244	2,489	206	647	1.6
St Clair	4,471	11,813	863	1,996	6.8
Franklin, MO	45,216	15,482	918	2,864	9.1
Jefferson, MO	52,671	13,612	1,160	3,291	10.4
Lincoln, MO	221	2,935	273	1,358	2.1
St Charles, MO	40,596	25,793	896	2,415	10.2
St Louis, MO	30,400	53,358	3,456	2,897	27.4
Warren, MO	324	1,803	205	674	1.5
St Louis (City), MO	14,647	27,193	1,214	958	11.0
Bond	177	1,883	137	628	1.1
Calhoun	192	1,162	88	170	0.7
Fayette	290	2,795	223	786	1.7
Greene	196	1,409	159	771	1.2
Macoupin	281	3,123	344	1,415	2.5

Marion	297	3,879	290	891	2.3
Montgomery	38,079	18,254	625	2,230	7.6
Morgan	24,066	6,713	500	1,725	4.7
Pike	6,252	4,850	259	901	2.4
Randolph	23,984	33,023	559	1,863	8.9
Sangamon	16,411	19,811	900	2,742	8.7
Washington	167	2,045	199	814	1.5
Crawford, MO	110	2,199	183	396	1.4
Dent, MO	100	521	121	431	0.8
Gasconade, MO	248	1,727	132	393	1.0
Iron, MO	34,225	1,851	140	291	2.1
Madison, MO	47	727	86	143	0.6
Montgomery, MO	364	1,740	145	719	1.2
Perry, MO	349	2,776	218	531	1.7
Phelps, MO	754	2,990	244	645	1.9
Pike, MO	15,205	10,931	206	773	3.3
St Francois, MO	697	4,204	328	825	2.5
Ste Genevieve, MO	3,666	7,315	255	940	2.7
Washington, MO	152	1,161	137	322	1.0

**Urban increment:**Total mass= 6.2  $\mu\text{g}/\text{m}^3$ 

8% sulfates; 29% nitrates; 58% carbon; 5% crustal.

Urban site= 295100085;

Rural site= MING1 (Mingo)

**Factor 2. Air quality in potentially included versus excluded areas:**

<u>County</u>	<u>2001-2003 Design Value</u>
<b>Madison</b>	<b>17.5 <math>\mu\text{g}/\text{m}^3</math></b>
<b>St Clair</b>	<b>16.2 <math>\mu\text{g}/\text{m}^3</math></b>
<b>Jefferson, MO</b>	<b>14.5 <math>\mu\text{g}/\text{m}^3</math></b>
<b>St Charles, MO</b>	<b>14.3 <math>\mu\text{g}/\text{m}^3</math></b>
<b>St Louis, MO</b>	<b>14.0 <math>\mu\text{g}/\text{m}^3</math></b>
<b>St Louis (City), MO</b>	<b>15.2 <math>\mu\text{g}/\text{m}^3</math></b>
Randolph	12.4 $\mu\text{g}/\text{m}^3$
Sangamon	13.3 $\mu\text{g}/\text{m}^3$
Ste Genevieve, MO	13.6 $\mu\text{g}/\text{m}^3$

**Factor 3. Population density and degree of urbanization including commercial development in included versus excluded areas:**

<u>County</u>	<u>2003 Population</u>	<u>Population Density</u>
Clinton	35,855	76
Jersey	21,858	59
Madison	261,409	361
Monroe	29,058	75
St Clair	257,904	388
Franklin, MO	95,890	104
Jefferson, MO	203,993	310
Lincoln, MO	42,280	67
St Charles, MO	303,030	540
St Louis, MO	1,018,102	2,004
Warren, MO	26,193	61
St Louis (City), MO	338,353	5,457
Randolph	33,641	58

**Factor 4. Traffic and commuting patterns:**

<u>County</u>	<u>County VMT</u>	<u>Percent</u>	<u>Number</u>
Clinton	375,000	35	5,915
Jersey	196,000	51	5,259
Madison	2,768,000	35	43,125
Monroe	264,000	57	8,172
St Clair	2,857,000	36	40,389
Franklin, MO	1,391,000	36	16,422
Jefferson, MO	2,511,000	63	61,991
Lincoln, MO	493,000	52	9,622
St Charles, MO	2,738,000	52	77,347
St Louis, MO	11,553,000	27	134,153
Warren, MO	348,000	54	6,414
St Louis (City), MO	4,178,000	40	56,734
Randolph	278,000	20	2,798

**Factor 5. Expected growth:**

<u>County</u>	<u>Percent growth 1990-2000</u>
Clinton	5

Jersey	5
Madison	4
Monroe	23
St Clair	-3
Franklin, MO	16
Jefferson, MO	16
Lincoln, MO	35
St Charles, MO	33
St Louis, MO	2
Warren, MO	26
St Louis (City), MO	-12
Randolph	-2

**Factor 6. Meteorology:**

<u>County</u>	<u>Average percent of wind direction by quadrant</u>			
	<u>Northwest</u>	<u>Southwest</u>	<u>Southeast</u>	<u>Northeast</u>
Clinton	28	29	29	15
Jersey	28	28	29	15
Madison	28	28	29	15
Monroe	28	28	29	15
St Clair	28	28	29	15
Franklin, MO	27	27	31	15
Jefferson, MO	28	27	31	15
Lincoln, MO	27	27	31	15
St Charles, MO	29	27	30	15
St Louis, MO	29	27	30	15
Warren, MO	27	27	31	16
St Louis (City), MO	29	27	30	15
Randolph	28	28	29	15

**Factor 7. Geography/topography:**

The geography/topography analysis looks at physical features of the land that might have an effect on the airshed, and therefore, the distribution of particulate matter over an area. The State of Illinois has no features that significantly influenced EPA's intended nonattainment areas.

**Factor 8. Jurisdictional boundaries:**

The East-West Gateway Council of Governments (EWGCC) is the Metropolitan Planning Organization (MPO) for the bi-state St. Louis area.

-source: EWGCC webpage, <http://www.ewgateway.org/>

The Illinois portion of the Saint Louis ozone nonattainment area consists of the following counties: Jersey, Madison, Monroe, and St. Clair.

**Factor 9. Level of control of emission sources:**

The State has provided no information about the level of control of emission sources for this area. Although EPA is aware that the Baldwin Generating Station is purchasing low sulfur coal and has installed NO<sub>x</sub> emission controls on some of its units, EPA does not have information as to the permanence of those reductions and whether the NO<sub>x</sub> emission controls are operated on an annual basis.