



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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April 3, 2008

Ms. Mary A. Gade
Regional Administrator
U.S. Environmental Protection Agency
Region V
77 West Jackson Boulevard
Chicago, IL 60604-3950

Re: Request for Redesignation and
Maintenance Plan for Fine Particle
Attainment in the Northwest Indiana
Nonattainment Area

Dear Ms. Gade:

The Indiana Department of Environmental Management (IDEM) hereby submits a Redesignation Petition and Maintenance Plan for the Fine Particle Northwest Indiana Nonattainment Area, consisting of Lake and Porter counties, which were designated as nonattainment of the annual standard for fine particles on April 5, 2005. IDEM conducted a public hearing concerning the Redesignation Petition and Maintenance Plan on February 27, 2008 and the public comment period concluded on March 11, 2008.

This submittal documents the public review process, including a detailed summary of and response to substantive comments.

The attached document consists of the following:

Redesignation Petition and Maintenance Plan

- A formal request that Lake and Porter counties be redesignated to attainment and reclassified as maintenance. It contains and meets the requirements set forth in Section 107 of the Clean Air Act and in U.S. EPA Redesignation Guidance.
- A maintenance year of 2020 is established and 2010 is analyzed as an interim year.
- The appendices of the document contain historic air quality trend data, projected emission inventory data and thorough documentation of the mobile emissions analysis.
- A summary of and response to substantive oral and written comments.

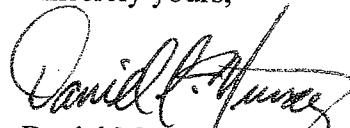
M. Gade

Motor Vehicle Emissions Budgets

- Contained in the Redesignation Petition is a new Motor Vehicle Emissions Budget for 2010 and 2020. The Northwest Indiana Regional Planning Commission's travel demand model and MOBILE6 were used to determine emissions for the annual fine particle nonattainment area.
- A conservative margin of safety was applied to the 2010 and 2020 projected emissions.
- The travel demand model was updated with the best available assumptions.
- Vehicle registration data gathered from the Indiana Bureau of Motor Vehicles were used to replace the MOBILE6 default vehicle age distribution.

IDEM hereby requests that the U.S. EPA proceed with review and approval of this submittal. If you have any questions or need additional information, please contact Scott Deloney, Chief, Air Programs Branch, at (317) 233-5694.

Sincerely yours,



Daniel Murray, Assistant Commissioner
Office of Air Quality

DM/sad/pad
Attachments

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Cheryl Newton, US EPA (no enclosures)
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Steve Rosenthal, US EPA (w/enclosures)
Scott Deloney, IDEM
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REQUEST FOR REDESIGNATION
AND
MAINTENANCE PLAN

UNDER THE ANNUAL
NATIONAL AMBIENT AIR QUALITY STANDARD
FOR
FINE PARTICLES

Lake and Porter Counties, Indiana

Prepared By:
The Indiana Department of Environmental Management
Office of Air Quality

April 2008

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**REQUEST FOR REDESIGNATION AND MAINTENANCE PLAN
UNDER THE
NATIONAL AMBIENT AIR QUALITY STANDARDS
FOR
FINE PARTICLES**

LAKE AND PORTER COUNTIES, INDIANA

1.0 INTRODUCTION

This document supports Indiana's request that Lake and Porter counties, in Northwest Indiana be redesignated from nonattainment to attainment of the annual standard for fine particles.

Although the 2001 through 2003 design value for the East Chicago monitoring site in Lake County resulted in a nonattainment designation for Lake and Porter counties, the 2002 through 2004 monitored design values for all monitor sites in both counties demonstrated attainment. The United States Environmental Protection Agency (U.S. EPA) originally designated counties under the annual standard for fine particles based on 2001 through 2003 monitoring data in December 2004. However, the U.S. EPA withdrew a number of counties identified as nonattainment based on the 2002 through 2004 data prior to the effective date of designations (April 5, 2005) due to the fact that those counties measured air quality that met the standard at the close of 2004.

Though Lake and Porter counties monitored attainment at the close of 2004, and the State of Indiana requested that the counties be classified in accordance with the measured air quality, the U.S. EPA proceeded by designating the counties nonattainment effective April 5, 2005. Lake and Porter counties continued to record three (3) years of quality assured ambient air quality monitoring data for the years 2003 through 2005 and 2004 through 2006, demonstrating continued compliance with the annual fine particles standard.

This document incorporates ambient monitoring data for fine particle concentrations through 2006. IDEM will supplement this document with 2007 ambient monitoring data, including the 2005-2007 design values, as soon as the data are quality assured. This supplement will be provided in conjunction with this draft document as soon as it's available, which should be late February 2008, prior to the close of the comment period.

Indiana's request to have the area redesignated is based on Section 107 (d) (3) (D) of the Clean Air Act (CAA), which states:

“The Governor of any State may, on the Governor's own motion, submit to the Administrator a revised designation of any area or portion thereof within the State. Within 18 months of receipt of a complete State redesignation submittal, the Administrator shall approve or deny such redesignation. The submission of a redesignation by a Governor shall not affect the effectiveness or enforceability of the applicable implementation plan for the State”.

1.1 Background

The Clean Air Act Amendments of 1990 (CAAA) require areas designated as nonattainment for the National Ambient Air Quality Standard (NAAQS) for fine particles to develop SIPs to expeditiously attain and maintain the standard. In 1997, the U.S. EPA set daily and annual ambient air quality standards for fine particles as shown in Table 1.1 below. The standards were legally challenged and upheld by the U.S. Supreme Court in February of 2001. In 1999, Indiana began monitoring for fine particles. The U.S. EPA designated areas under the fine particles standard on December 17, 2004 as attainment, nonattainment, or unclassifiable, with an effective date of April 5, 2005.

Table 1.1
National Ambient Air Quality Standards for Fine Particles *

	Annual	24-Hour
1997 Fine Particles Standards (PM _{2.5})	15 µg/m³ Annual arithmetic mean, averaged over 3 years	65 µg/m³ 24-hour average, 98 th percentile, averaged over 3 years
2006 Fine Particles Standards (PM _{2.5})	15 µg/m³ Annual arithmetic mean, averaged over 3 years	35 µg/m³ 24-hour average, 98 th percentile, averaged over 3 years

Note: The Northwest Indiana Area meets the 1997 annual and 24-hour NAAQS for fine particles. U.S. EPA is scheduled to finalize designations for the 2006 24-hour standard in December 2009. Since this area is solely designated nonattainment under the 1997 annual standard for fine particles, this document only addresses the annual standard. However, as documented in Commissioner Easterly's December 17, 2007 letter to U.S. EPA Regional Administrator Gade, both Lake and Porter Counties currently meet the new 24-hour standard.

Indiana shares U.S. EPA's goal of ambient air quality that meets national health standards and has made substantial progress towards that goal since passage of the Clean Air Act over 30 years ago. Indiana intends to continue this progress until Indiana's air quality continually meets all national ambient air quality standards throughout the state. U.S. EPA's designation of Lake and Porter counties as nonattainment of the annual fine particles standard has resulted in disparate treatment of Lake and Porter counties in comparison to other counties across the country, including some within the same Metropolitan Statistical Area (MSA).

The purpose of this document is to demonstrate that Lake and Porter counties should be separated from the rest of the Chicago nonattainment area for fine particles, and redesignated to attainment. Lake and Porter counties do not significantly impact monitored violations in the Chicago area and additional controls in Lake and Porter counties will not provide for attainment of the standard in the Chicago area. Therefore, this document requests that Lake and Porter counties be properly designated as attaining the standard, addresses all redesignation requirements, and provides additional information to support continued compliance with the annual standard for fine particles.

1.2 Geographical Description of Indiana's Portion of Nonattainment Area

Lake and Porter counties are located in Northwest Indiana and contain cities such as Gary, Hammond, East Chicago, Portage and Valparaiso. Lake and Porter counties are bordered by Lake Michigan to the north, the Indiana counties of Newton and Jasper to the south and LaPorte County to the east. The Illinois counties of Cook, Kankakee and Will border Lake and Porter counties to the west. This area is depicted in Figure 3.1.

1.3 Status of Air Quality

Fine particles monitoring data for every three-year period since the three-year period ending in 2004, including the most recent three (3) years, 2004 through 2006, demonstrates that air quality meets the annual fine particles standard in Lake and Porter counties. Technical analysis, as summarized in this document, also demonstrates that Indiana's portion of the nonattainment area does not contribute to monitored violations of the standard within the Illinois portion of the nonattainment area. These facts, accompanied by the permanent and enforceable reductions in emission levels discussed in Section 4.0, justifies a redesignation to attainment for Indiana's portion of the nonattainment area based on Section 107(d)(3)(E) of the CAAA.

2.0 REDESIGNATION REQUIREMENTS

2.1 General

Section 110 and Part D of the CAAA lists a number of requirements that must be met by nonattainment areas prior to consideration for redesignation to attainment. In addition, U.S. EPA has published detailed guidance in a document entitled *Procedures for Processing Requests to Redesignate Areas to Attainment*, issued September 4, 1992, to Regional Air Directors. This document is hereafter referred to as "Redesignation Guidance". This Request for Redesignation and Maintenance Plan is based on the Redesignation Guidance. The specific requirements for redesignation are listed below.

2.2 Fine Particles Monitoring

- 1) A demonstration that the annual standard for fine particles, as published in 40 CFR 50.7, has been attained. Fine particles monitoring data must show that violations of the annual ambient standard are no longer occurring.
- 2) Ambient monitoring data quality assured in accordance with 40 CFR 58.10, recorded in the U.S. EPA Air Quality System (AQS) database, and available for public view.
- 3) A showing that the three-year average of annual values, based on data from all monitoring sites in the area or its affected downwind environs, do not exceed 15.0 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). This showing must rely on the most recent three (3) consecutive years of complete quality assured data.
- 4) A commitment that, once redesignated, the State will continue to operate an appropriate monitoring network to verify maintenance of the attainment status.

2.3 Emission Inventory

- 1) A comprehensive emission inventory of fine particles and fine particle precursors completed for the base year. (2005)

- 2) A projection of the emission inventory to a year at least ten (10) years following redesignation.
- 3) A demonstration that the projected level of emissions is sufficient to maintain the annual fine particles standard.
- 4) A demonstration that improvement in air quality between the year violations occurred and the year attainment was achieved is based on permanent and enforceable emission reductions and not on temporary adverse economic conditions or unusually favorable meteorology.
- 5) Provisions for future annual updates of the inventory to enable tracking of the emission levels, including an annual emission statement from major sources.

2.4 Modeling Demonstration

While no modeling is required for redesignating nonattainment areas, the Indiana Department of Environmental Management (IDEM) has evaluated the results of regional photochemical modeling to demonstrate that compliance with the standard will be maintained. This modeling is discussed in Section 7.0 of this document.

2.5 Controls and Regulations

- 1) A U.S. EPA-approved SIP control strategy that includes Reasonably Available Control Technology (RACT) requirements for existing stationary sources covered by Control Technology Guidelines (CTG) and non-CTG RACT for all major sources.
- 2) Evidence that control measures required in past SIP revisions have been fully implemented.
- 3) Acceptable provisions to provide for new source review.
- 4) Assurances that existing controls will remain in effect after redesignation, unless the State demonstrates through photochemical modeling that the standard can be maintained without one (1) or more controls.
- 5) If appropriate, a commitment to adopt a requirement that all transportation plans conform with and are consistent with the SIP.

2.6 Corrective Actions for Potential Future Violations of the Standard

- 1) A commitment to submit a revised plan eight (8) years after redesignation.
- 2) A commitment to expeditiously enact and implement additional contingency control measures in the event that future violations of the ambient standard occur.

- 3) A list of potential contingency measures that would be implemented in such an event.
- 4) A list of direct PM_{2.5}, NO_x and SO₂ sources potentially subject to future controls.

3.0 FINE PARTICLES MONITORING

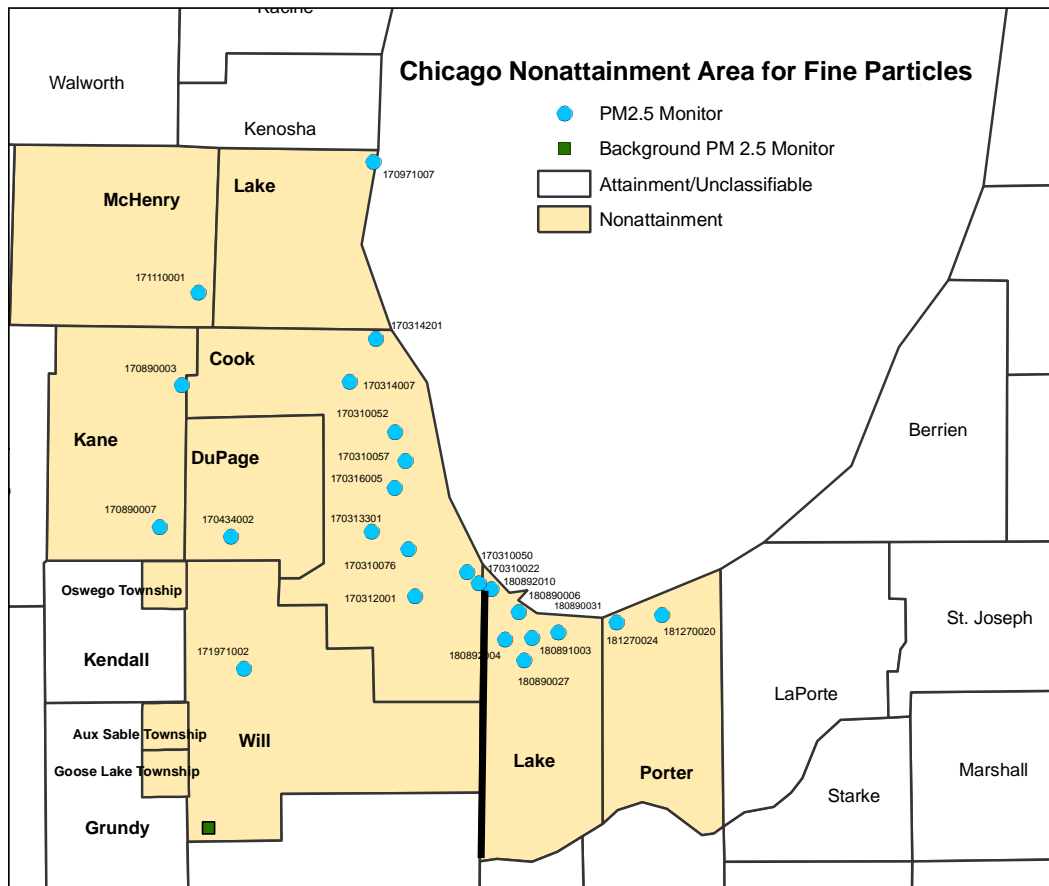
3.1 Fine Particles Monitoring Network

There are currently eight monitors measuring fine particle concentrations in Lake and Porter counties. These monitors are located as follows: Lake County (Gary Water Plant¹, Ivanhoe School, Eldon Ready School, Franklin School, Purdue and Robertsdale); and Porter County (Dunes National Lakeshore and Ogden Dunes Water Treatment Plant). The eight monitors are currently operated by IDEM's Office of Air Quality (OAQ). A listing of the monitor readings from 2000 through 2006 are shown in Table 3.1 and were retrieved from the U.S. EPA's Air Quality System (AQS). The locations of the monitoring sites and the respective site identifiers (refer to Table 3.2) for this nonattainment area are shown in Figure 3.1.

IDEM's OAQ also operates two monitors in Lake and Porter counties that collect background and/or source oriented fine particle concentrations. While these monitors are not used to determine attainment with the annual fine particles standard, the monitoring values are included as supporting material in Appendix A.

¹ Since the Gary Water Plant monitoring site began operation in July 2005 there are only two years of data available at this time.

Figure 3.1
Chicago Nonattainment Area for Fine Particles



3.2 Ambient Fine Particles Monitoring Data

The following information is taken from U.S. EPA's "Guideline on Data Handling Conventions for the PM NAAQS," EPA-454/R-99-008, April 1999.

Three (3) complete years of fine particle monitoring data is required to demonstrate attainment at a monitoring site. The annual fine particles ambient air quality standard is met at an ambient air quality monitoring site when the three (3) year average of the annual average of fine particle concentrations is less than or equal to $15.0 \mu\text{g}/\text{m}^3$. When this occurs, the site is said to be in attainment.

Three (3) significant digits must be carried in the computations and values are rounded to the nearest $0.1 \mu\text{g}/\text{m}^3$. Round decimals 0.05 or greater up and those less than 0.05 down, $15.049 \mu\text{g}/\text{m}^3$ is the largest concentration that is less than, or equal to $15.0 \mu\text{g}/\text{m}^3$. Therefore, for the purposes of this request, the annual fine particles standard is considered to be $15.0 \mu\text{g}/\text{m}^3$. Values equal to or below $15.0 \mu\text{g}/\text{m}^3$ meet the standard; values equal to or greater than $15.1 \mu\text{g}/\text{m}^3$ exceed the standard.

These data handling procedures are applied on an individual basis at each monitor in the area. An area is in compliance with the annual fine particles standard if, and only if, the monitoring site meets the NAAQS. An individual site's three (3) year average of the annual average fine particle concentration is also called the site's *design value*. The air quality design value for the area is the highest design value among all sites in Lake and Porter counties. Table 3.1 outlines the 2000 through 2006 design values for the active fine particle monitoring sites in Lake and Porter counties. As mentioned above, only one monitor in Lake County violated the annual fine particles standard in 2001-2003, however all monitors attained the standard the next year, based on the 2002-2004 design values.

Table 3.1
Monitoring Data for Lake and Porter Counties
(Three-Year Design Values)

Site #	City	Site Name	Three Year Design Values ($\mu\text{g}/\text{m}^3$)				
			00-02	01-03	02-04	03-05	04-06
18-089-0006	East Chicago	Franklin School	15.6	15.2	14.2	14.5	14.0
18-089-0027	Highland	Eldon Ready School	14.6	14.6	13.8	14.1	13.5
18-089-0031	Gary	Water Plant - Madison	Site began operation in 07/05 ¹				
18-089-1003	Gary	Ivanhoe School	15.2	14.8	14.1	14.3	13.7
18-089-2004	Hammond	Purdue	15.0	14.9	14.2	14.4	13.8
18-089-2010	Hammond	Robertsdale	14.9	14.9	13.9	14.1	13.6
18-127-0020		Dunes Natl. Lakeshore	13.5	13.4	12.8	13.0	12.3
18-127-0020	Ogden Dunes	Water Treatment Plant	14.3	13.8	13.2	13.3	12.9
			value above the standard				
			Incomplete Data				

In accordance with Section 110 of the CAA, monitoring data must demonstrate that the three-year average of annual values, based on data from all monitoring sites in the area or its affected downwind environs, are at or below 15.0 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). This showing must rely on the most recent three (3) consecutive years of complete quality assured data. This data are shown in Table 3.2.

Table 3.2
Monitoring Data for Lake and Porter Counties
(2004-2006 Design Values)

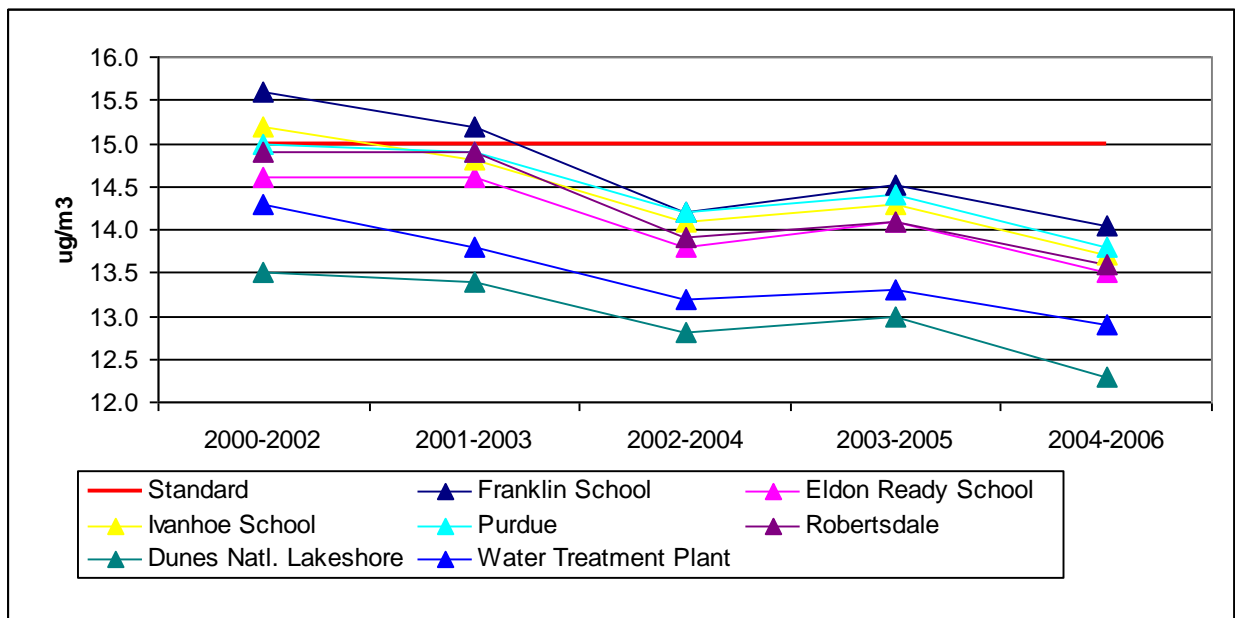
SITE ID	COUNTY	SITE NAME	YEAR	Annual Average	2004-2006 Average
				µg/m ³	µg/m ³
18-089-0006	Lake	Franklin School	2004	13.18	14.0
18-089-0006	Lake	Franklin School	2005	15.76	
18-089-0006	Lake	Franklin School	2006	13.18	
18-089-0027	Lake	Eldon Ready School	2004	12.82	13.5
18-089-0027	Lake	Eldon Ready School	2005	15.46	
18-089-0027	Lake	Eldon Ready School	2006	12.29	
18-089-1003	Lake	Ivanhoe School	2004	12.92	13.7
18-089-1003	Lake	Ivanhoe School	2005	15.71	
18-089-1003	Lake	Ivanhoe School	2006	12.57	
18-089-2004	Lake	Purdue	2004	13.26	13.8
18-089-2004	Lake	Purdue	2005	15.4	
18-089-2004	Lake	Purdue	2006	12.67	
18-089-2010	Lake	Robertsdale	2004	12.47	13.6
18-089-2010	Lake	Robertsdale	2005	15.59	
18-089-2010	Lake	Robertsdale	2006	12.79	
18-127-0020	Porter	Dunes Natl. Lakeshore	2004	11.84	12.3
18-127-0020	Porter	Dunes Natl. Lakeshore	2005	14	
18-127-0020	Porter	Dunes Natl. Lakeshore	2006	11.02	
18-127-0024	Porter	Water Treatment Plant	2004	12.38	12.9
18-127-0024	Porter	Water Treatment Plant	2005	14.59	
18-127-0024	Porter	Water Treatment Plant	2006	11.81	

Note: The Gary Water Treatment Plant monitor (site # 18-089-0031) is not included in Table 3.2, Graph 3.1, or Figure 3.2 because three complete years of data are not available. The site began operation in mid-2005.

Graph 3.1 shows the trend in design values for Lake and Porter counties over the past seven years. A comprehensive list of the eight fine particle monitoring site's design values over this period is in Appendix A. The area's design values have continued to trend downward as emissions have declined due to such programs as the Acid Rain program, the NO_x SIP Call and cleaner automobile engines and fuels, both regionally and locally.

U.S. EPA's rule to control nitrogen oxides from specific source categories (40 CFR Parts 51, 72, 75 and 96, published on October 17, 1998 and referred to as the "NO_x SIP Call") has significantly reduced emissions from large electric generating units (EGUs), industrial boilers, and cement kilns. Indiana's NO_x Rule was adopted on June 6, 2001 (326 IAC 10-3 and 10-4). The elevated values for 2005 are considered an abnormal occurrence. An analysis of meteorological conditions and monitoring values is included in Section 7.0 and supports the conclusion that attainment of the standard as of 2004 is not the result of unusually favorable meteorological conditions. It is expected that this downward trend will continue as the above programs continue and the U.S. EPA Clean Air Interstate Rule (CAIR) is implemented.

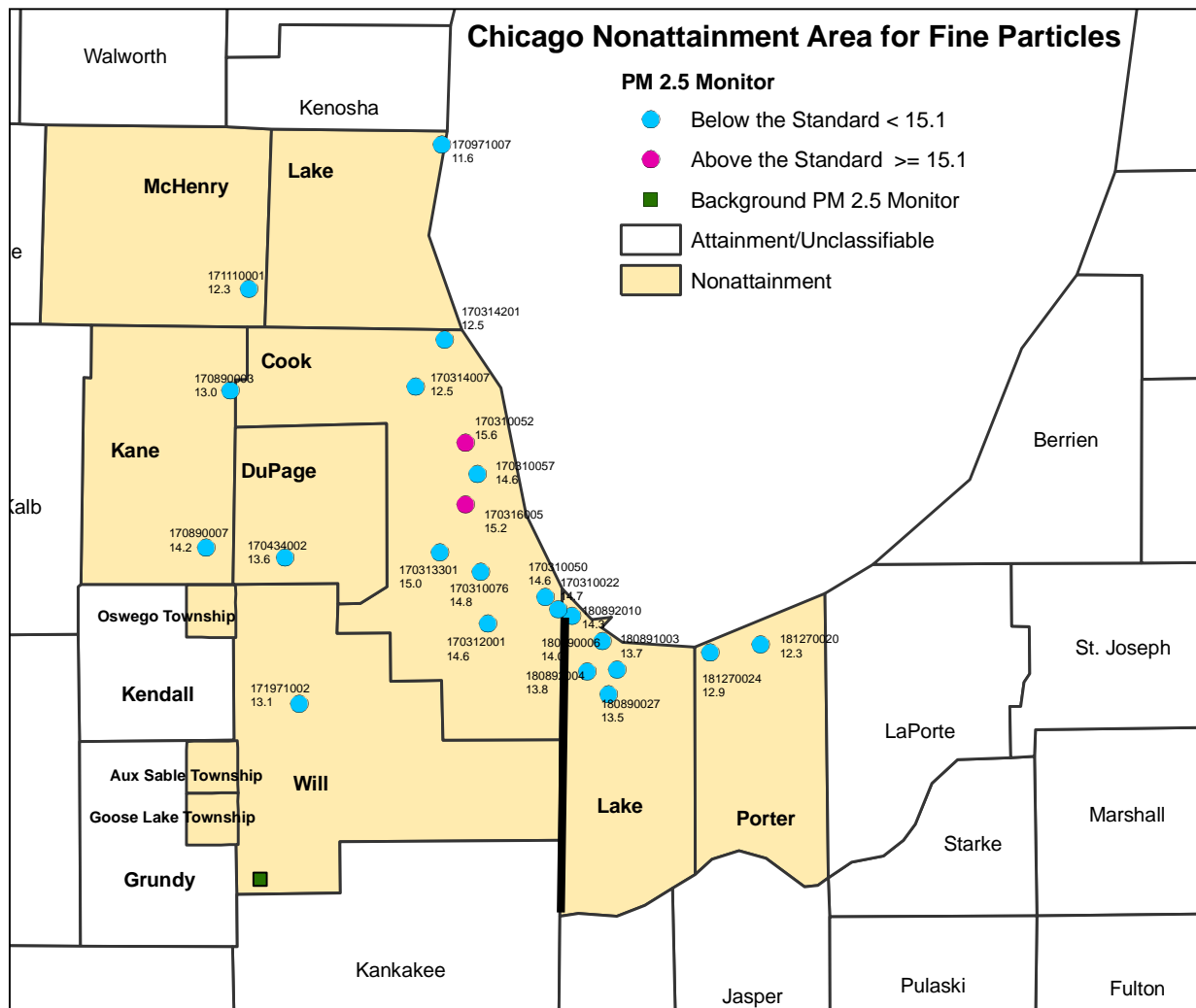
Graph 3.1
Trends in Lake and Porter Counties' Fine Particles Design Values
2000 through 2006
Controlling Monitor – Franklin



3.3 Indiana's Culpability

Figure 3.2 shows the monitors located within the Chicago nonattainment area along with the monitoring site number and the 2004 through 2006 design value. Indiana has conducted an evaluation to determine the impacts of Lake and Porter county sources on fine particles monitors in the Chicago nonattainment area. As a result, Indiana has determined that emissions from Lake and Porter counties do not affect the downwind area's ability to attain the fine particles standard. There are only two monitors in the Chicago nonattainment area that are currently violating the fine particles standard (Wilson Ave, 170310052 and Cicero, 170316005).

Chicago-Indiana PM_{2.5} Monitoring Locations



The monitors that are located closer to the Indiana state line and the lakefront, and should be more directly impacted by emissions from Lake and Porter county sources, are monitoring attainment of the standard (see Figure 3.2). If emissions from Lake and Porter counties were significantly contributing to the violating monitors in Illinois, we would expect to see higher levels at the monitors located between Indiana and the violating monitors as well. The Illinois monitors that measure values above the annual standard for fine particles are more inland and are most likely affected by local sources, specifically mobile source emissions.

As shown in Figures 3.3 and 3.6, these two Illinois sites are located within close proximity of the convergence of several major interstates, expressways, downtown Chicago and various commercial and industrial regions. The Cicero monitoring site is surrounded by a massive rail and heavy duty diesel truck loading/transfer operation. These monitors are most greatly impacted by the mass of emissions in Illinois, which vastly exceeds those that may be originating from surrounding areas, including Lake and Porter counties. Due to its immediate proximity to multiple transportation facilities, it could be argued that the Wilson Avenue monitor location is

more representative of a source specific site. In considering characteristics like distance from population and proximity to vehicular traffic, the Wilson Avenue site is very comparable to other monitor locations in the region that are identified as source specific (i.e., the Burr Street location in Lake County, Indiana).

Figure 3.3
Cicero, IL Monitor Location

Monitor 170316005 Cicero (13th St. & 50th Ave.)





Figure 3.4
Inset 1-A
Large Rail Yard

Figure 3.5
Inset 1-B
Rail Yard/Diesel Truck Transfer Operation



Figure 3.6
Wilson Ave., IL Monitor Location

Monitor 170310052 at 4850 Wilson Ave.



Lake and Porter counties are subject to the most stringent group of emission controls within the state of Indiana. This collection of permanent and enforceable controls is equally as stringent as those that apply elsewhere within the nonattainment area, and in some cases, more stringent. For example, organic carbon accounts for a significant portion of fine particle mass and it is believed that the majority of organic carbon in urban areas originates from mobile source emissions, especially poorly maintained vehicles. Indiana believes that the two monitoring sites (Cicero and Wilson Avenue) in Cook County, Illinois that currently measure fine particle concentrations above the standard are affected by “urban excess”, mostly attributable to localized mobile sources.

Indiana is confident that the portion of the total vehicle miles traveled (VMT) in close proximity to these sites from vehicles registered in Lake and Porter counties is a small percentage of the total VMT affecting these monitoring sites. Regardless, vehicles registered in Lake and Porter counties are subject to reformulated gasoline and enhanced vehicle inspection and maintenance

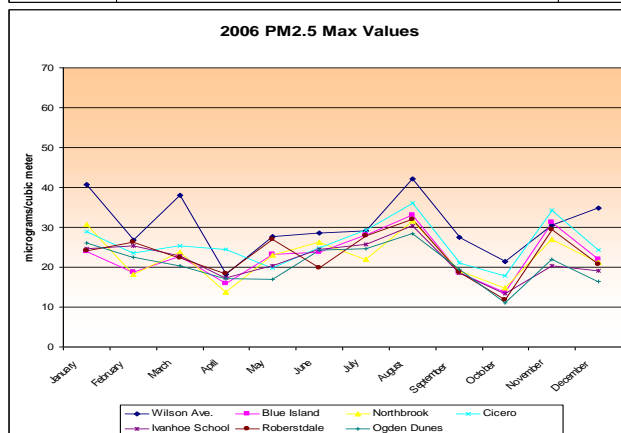
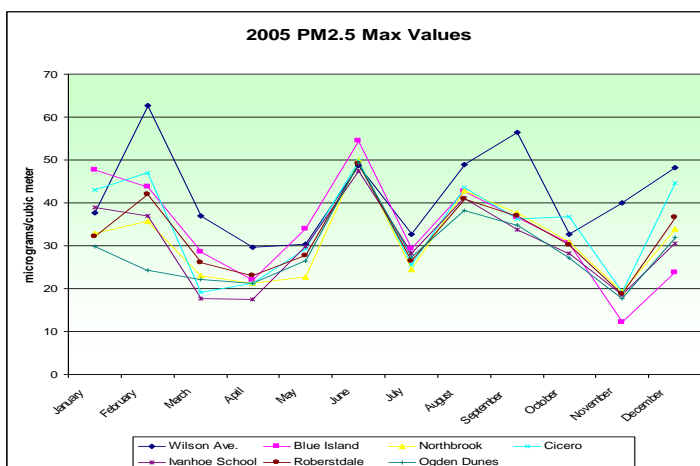
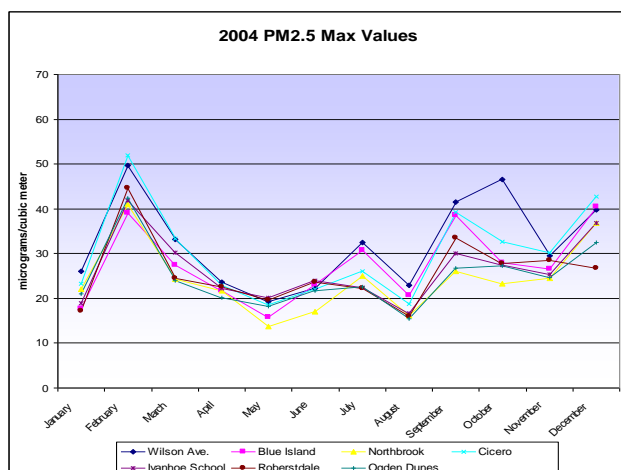
requirements. Enhanced vehicle inspection and maintenance is the most effective control for organic carbon. Indiana maintains a comprehensive vehicle inspection and maintenance program in Lake and Porter counties for all vehicles of model year 1976 and newer. Lake and Porter counties' motor vehicle control program is more stringent² than that which applies to the vast majority of the fleet that accounts for the VMT and long-term idling in close proximity to the aforementioned sites. In fact, the greatest portion of the fleet defined as "high-emitters" for organic carbon and other precursors are pre-1996 model year vehicles, none of which are subject to vehicle inspection and maintenance requirements in Illinois.

Furthermore, as Section 7.2 illustrates, the violating monitors within the Chicago area are affected more by emissions deriving from Wisconsin, presumably primarily from Southeast Wisconsin, than from Lake and Porter counties. The U.S. EPA did not designate any portion of Wisconsin, including the Southeast counties, nonattainment under the annual standard for fine particles. For U.S. EPA to be consistent in making designations the same criteria should be applied to Lake and Porter counties that U.S. EPA used in exempting the Southeast Wisconsin area from a nonattainment designation, since both areas monitored attainment and do not adversely affect the downwind area's ability to attain the standard.

To further illustrate this point, the graphs below show the maximum monitored values for each month during 2004, 2005 and 2006, for various sites in the nonattainment area. To demonstrate geographic placement, the charts also include the Northbrook, IL site (170314201) in the far northern area, the Blue Island, IL site (170312001) in the southwestern part of the area, two Lake Co., IN sites, and one Porter Co., IN site. These charts indicate that the fine particle values for Wilson Avenue and Cicero monitors are significantly higher than those recorded at any Indiana monitor or at any of the monitors between Indiana and the area of Illinois that measures nonattainment.

² The Illinois vehicle emissions testing program is limited to model years 1996 and newer.

Graph 3.2
PM_{2.5} Maximum Monitored Values
(2004 – 2006)



These graphs also demonstrate that there is a regional trend or relationship between all of the monitor locations, with the exception of the Wilson Ave. (site #170316052) and the Cicero (site #170316005), IL sites (the two sites that exceed the standard), especially evident in October 2004, February, September, November and December 2005 and January, March, August and December 2006. These spikes in monitoring levels are unrelated to regional events, but rather local influences that are unrelated to Indiana.

Indiana further analyzed the days that the monitoring levels spiked at the Wilson Avenue monitoring site with values substantially higher than the next highest monitor value in the region on that date, as shown in Table 3.3. Indiana then compared those days to wind data to determine the direction of prevailing winds during those days. Average hourly meteorological data was taken from Gary and Hammond meteorological stations, located in Lake County, as well as the Great Lakes Environmental Research Laboratory (GLERC) Meteorological Observation station, Harrison-Dever Crib, located approximately 3 miles offshore of downtown Chicago. The comparison for the highest monitor value days at the Wilson Avenue monitoring site showed winds from different directions with winds predominately from the east, south, west and southwest. Based on this sample of high fine particles monitor value days, while emissions from all surrounding areas may have small impacts, it is evident that there is no significant impact from Northwest Indiana.

Table 3.3
Comparison of Regional High Monitor Values

Date	Wilson Avenue Monitor Value ($\mu\text{g}/\text{m}^3$)	Next Highest Monitor Value in Region ($\mu\text{g}/\text{m}^3$)	Monitor Location	Highest NW Indiana Monitor Value ($\mu\text{g}/\text{m}^3$)	Wind Direction
10-27-2004	33.7	32.6	Cicero	27.8	ESE, SE
02-03-2005	62.6	43.8	Blue Island	42.0	W, WNW
01-23-2006	40.8	22.8	Northbrook	24.7	WSW, NNW

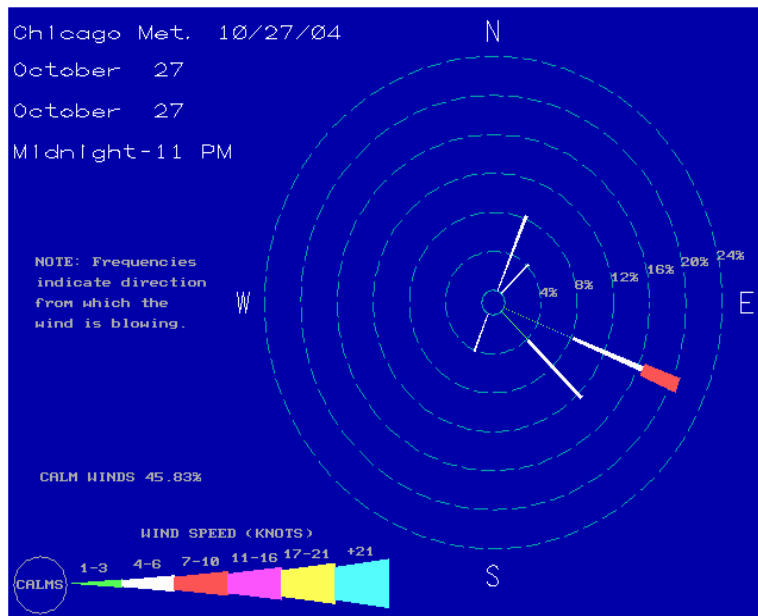
Further analysis of high fine particles days included a back trajectory analysis, using the HYSPLIT (HYbrid Single-Particle Lagrangian Integrated Trajectory) model from National Oceanic and Atmospheric Administration's (NOAA) Air Resources Laboratory (ARL). Back trajectory analyses provide an indication of the origin of the air from the previous day that may impact the Chicago, Illinois area. Back trajectory measures the winds at different heights in the atmosphere to determine from what locations pollutants may be picked up and transported to an area. The back trajectory analysis for the high fine particles monitor value days at the Wilson Avenue were taken from the Chicago - O'Hare International Airport show various wind directions and different origins of the air pollutants found in Chicago on the day of the higher fine particles monitor values.

PM_{2.5}/Meterological Data Analysis for October 27, 2004

The October 27th, 2004 wind rose and back trajectory for the Chicago area are shown below. On this day, the Wilson Ave. monitor had a monitored maximum value of $33.7 \mu\text{g}/\text{m}^3$ for fine particles. The next highest monitored value within the area was $32.6 \mu\text{g}/\text{m}^3$ at the Cicero monitor.

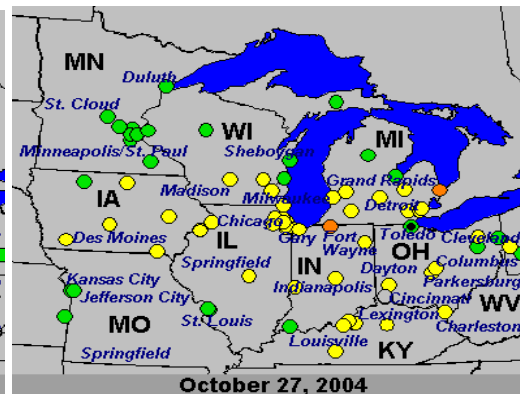
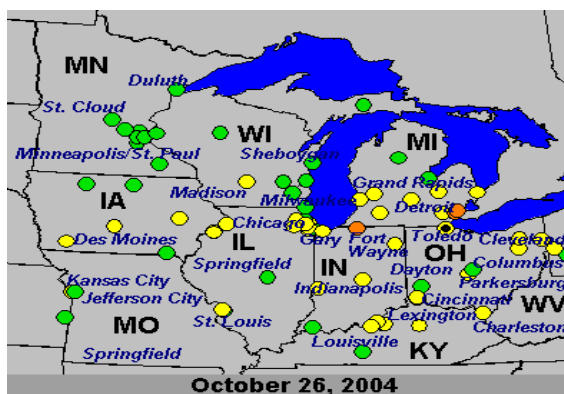
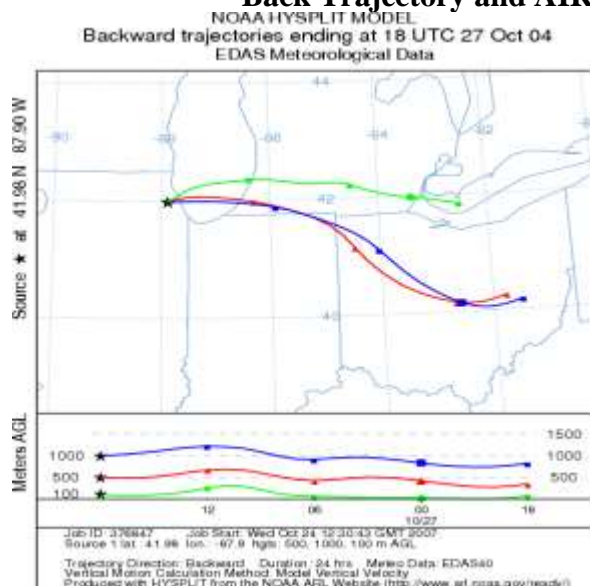
The results of the wind rose, in Figure 3.7, show light northerly, easterly and southeasterly winds on that day. Archived AIRNOW fine particles data from October 26th and 27th, 2004 show the regional nature of fine particle concentrations during this time period. Northwest Indiana could be considered upwind of Chicago for this day and potential impact on the fine particle monitors in Illinois exists.

Figure 3.7
Wind Rose, Back Trajectory and AIRNOW data for October 27, 2004



All winds were less than 10 knots (11.5 miles per hour). These lighter winds indicate more stagnant surface conditions during the day, resulting in a greater impact from local emissions on the fine particle monitors in Illinois.

Back Trajectory and AIRNOW data for October 27, 2004



The back trajectory, in Figure 3.7 above, show the air from the previous day (October 26th) came from Ohio, southern Michigan and northeast corner of Indiana and impacted the Chicago area on October 27th. AIRNOW data shows that fine particle concentrations were in the Moderate

(yellow or 15 to 40 $\mu\text{g}/\text{m}^3$) range of the Air Quality Index (AQI) with some areas in the Unhealthy for Sensitive Groups (orange or 40 to 65 $\mu\text{g}/\text{m}^3$) range throughout northern Ohio, southern Michigan and northern Indiana for both days. While not completely eliminating Northwest Indiana's potential culpability on this day, it appears that there was transport of fine particles and its precursors from other regions located east of Chicago, and that local sources contributed at least 5.0 to 6.0 $\mu\text{g}/\text{m}^3$ to the high values at these monitors.

Table 3.4
PM_{2.5} Monitored Values for October 27, 2004

PM_{2.5} Monitored Values for October 27, 2004		
Site ID	Monitoring Site	Monitored Values ($\mu\text{g}/\text{m}^3$)
17-031-0052	Wilson Ave.	33.7
17-031-2001	Blue Island	28.0
17-031-4201	Northbrook	Did not report
17-031-6005	Cicero	32.6
18-089-1003	Gary-Ivanhoe	27.4
18-089-2010	Hammond-Clark H.S.	27.8
18-127-0024	Ogden Dunes	27.2

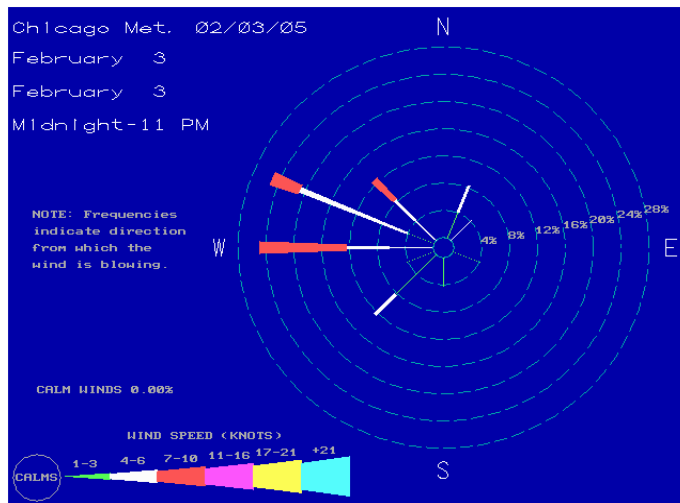
PM_{2.5}/Meteorological Data Analysis for February 3, 2005

The February 3rd, 2005 wind rose and back trajectory analysis for the Chicago area are shown below, in Figure 3.8. On this day, the Wilson Ave. monitor had a maximum monitored value of 62.6 $\mu\text{g}/\text{m}^3$ for fine particles and the next highest monitored value was 47.0 $\mu\text{g}/\text{m}^3$ at the Cicero monitor.

The results of the wind rose, in Figure 3.8, show light westerly winds on that day. Archived AIRNOW fine particles data from February 2 and 3, 2005 show the regional nature of fine particle concentrations during this time period. Northwest Indiana could be considered downwind of Chicago for this day and not likely to have an impact on the fine particle monitors in Illinois.

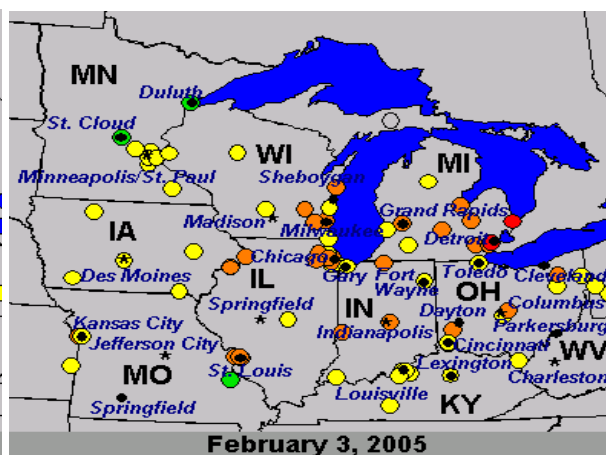
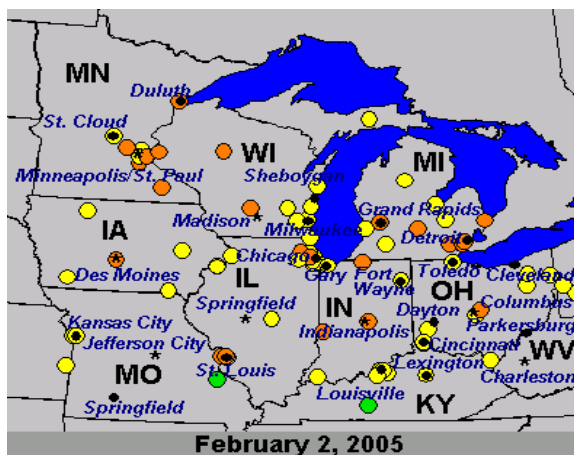
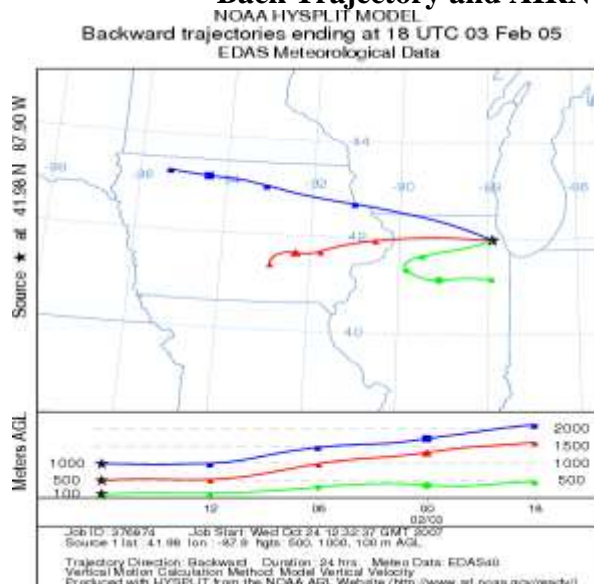
The entire upper Midwest was in the middle of a fine particles episode during this date, with fine particle monitored values in excess of 50.0 and 60.0 $\mu\text{g}/\text{m}^3$. Meteorological conditions were such that a stagnant air mass was over the entire upper Midwest area and conditions were conducive for fine particle build-up.

Figure 3.8
Wind Rose, Back Trajectory and AIRNOW data for February 3, 2005



The winds appear to have been less than 10 knots (11.5 miles per hour). This would indicate lighter wind

Back Trajectory and AIRNOW data for February 3, 2005



The back trajectory from the previous day (February 2nd) show the air came from Iowa and northern Illinois on February 3rd. The wind directions at the lower levels of the atmosphere appear to change directions, indicating recirculation of northeast Illinois' air from the previous

day. AIRNOW data show that fine particle concentrations were in the Moderate range (yellow or 15 to 40 $\mu\text{g}/\text{m}^3$ range) of the AQI with some areas in the Unhealthy for Sensitive Groups (orange or 40 to 65 $\mu\text{g}/\text{m}^3$) range throughout Illinois, Iowa and southern Wisconsin for both February 2nd and February 3rd. It appears that there is pollution transport in the upper atmosphere from regions west of Chicago along with recirculation of surface air from northeast Illinois due to a large high pressure system which persisted for several days. The unique meteorological conditions suppressed mixing in the atmosphere and pollutants were trapped at the surface. The concentrations at the regional monitoring sites, excluding the Wilson Ave. site, ranged within 10 to 12 $\mu\text{g}/\text{m}^3$. However, the Wilson Ave. monitor had concentrations more than 15.0 to 25.0 $\mu\text{g}/\text{m}^3$ higher than other sites located in northwest Indiana or at sites between Indiana and the Wilson Ave. site, indicating greater local source contributions at this monitor.

Table 3.5
PM_{2.5} Monitored Values for February 3, 2005

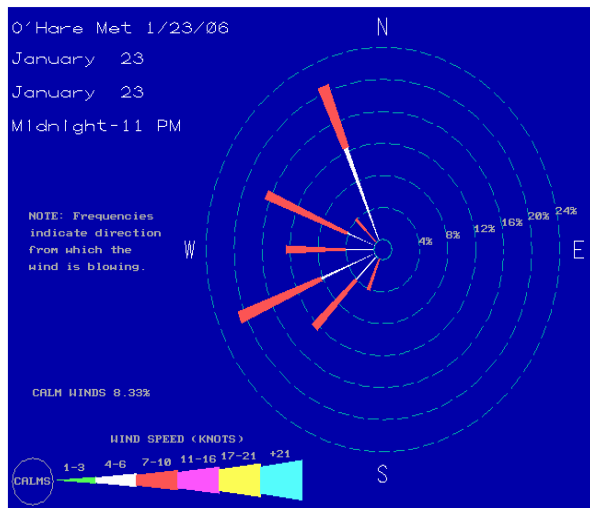
PM_{2.5} Monitored Values for February 3, 2005		
Site ID	Monitoring Site	Monitored Value ($\mu\text{g}/\text{m}^3$)
17-031-0052	Wilson Ave.	62.6
17-031-2001	Blue Island	43.8
17-031-4201	Northbrook	35.8
17-031-6005	Cicero	47
18-089-1003	Gary-Ivanhoe	37
18-089-2010	Hammond-Clark H.S.	42
18-127-0024	Ogden Dunes	Did not report

PM_{2.5}/Meteorological Data Analysis for January 23, 2006

The January 23rd, 2006 wind rose and back trajectory analysis for the Chicago area are shown below. On this day, the Wilson Ave. monitor had a maximum monitored value of 40.8 $\mu\text{g}/\text{m}^3$ for fine particles and the next highest monitored value within the area was 28.7 $\mu\text{g}/\text{m}^3$.

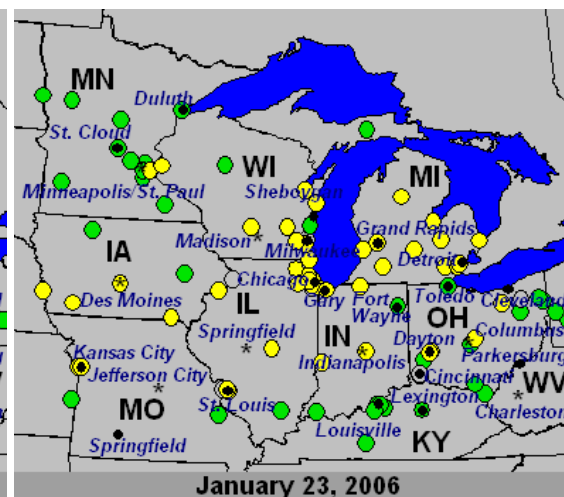
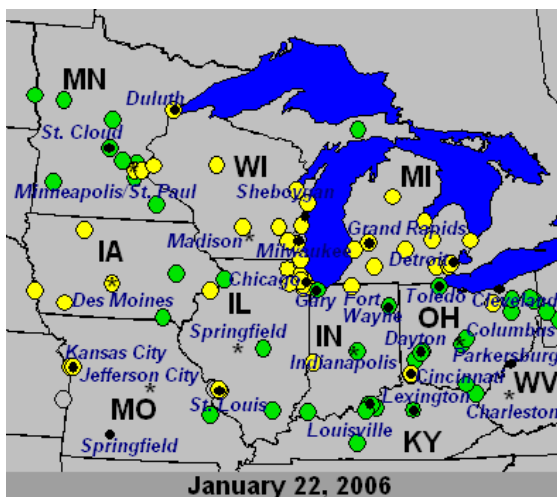
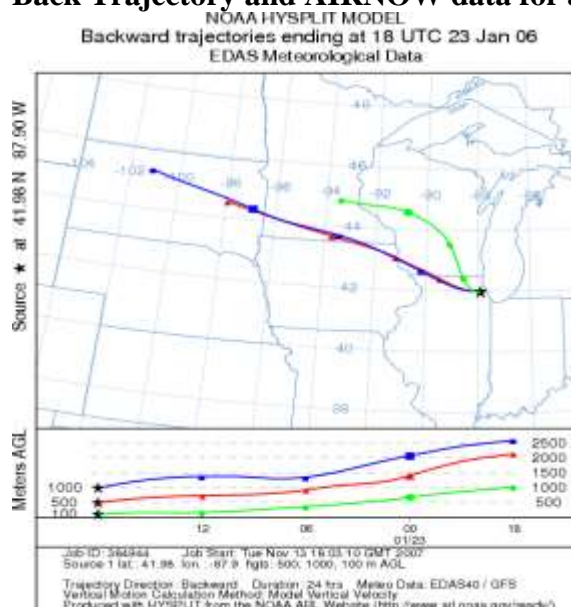
The results of the wind rose, shown in Figure 3.9, show southwesterly winds on this day. Archived AIRNOW fine particles data from January 22nd and 23rd, 2006 show the regional nature of fine particle concentrations during this time period with higher concentrations in the upper Midwest. Northwest Indiana could be considered downwind for this day, thus it is unlikely that it contributed to fine particle concentrations measured in Illinois.

Figure 3.9
Wind Rose, Back Trajectory and AIRNOW data for January 23, 2006



Winds appear to be between 7 and 10 knots (8 to 12 miles per hour) from the north and northwest and west and southwest. This would indicate higher wind speeds, resulting in more transport of fine particles and their precursors at the surface from the southwest to the fine particle monitors in the Chicago area.

Back Trajectory and AIRNOW data for January 23, 2006



The back trajectory, shown in Figure 3.9, from the previous day (January 22, 2006) show the air coming from Nebraska, southern Minnesota, northern Iowa, southern Wisconsin and northern

Illinois on January 23rd. AIRNOW data show that fine particle concentrations were in the range of 15.0 to 40.0 $\mu\text{g}/\text{m}^3$ throughout southern Minnesota, northern Iowa, southern Wisconsin and northern Illinois. It appears that there is transport from southern Minnesota, northern Iowa, southern Wisconsin and northern Illinois. Northwest Indiana should be considered downwind of Chicago for this date, thus it is highly unlikely that Lake and Porter counties contributed to fine particle concentrations measured in Illinois. Meteorological data indicate that Northwest Indiana sources were downwind on the 23rd with higher wind speeds and monitoring data from nearby sites indicating local sources contributed to the higher values at Wilson Ave. The monitoring sites had some variation in their concentrations, within 4.0 to 7.0 $\mu\text{g}/\text{m}^3$. However, the Wilson Ave. monitor had concentrations at least 16.0 $\mu\text{g}/\text{m}^3$ higher than other sites located between Lake and Porter counties and the Wilson Ave. site, indicating greater local source contributions at this monitor during this fine particles episode.

Table 3.6
PM_{2.5} Monitored Values for January 23, 2006

PM_{2.5} Monitored Values for January 23, 2006		
Site ID	Monitoring Site	Monitored Value ($\mu\text{g}/\text{m}^3$)
17-031-0052	Wilson Ave.	40.8
17-031-2001	Blue Island	21.6
17-031-4201	Northbrook	22.8
17-031-6005	Cicero	28.7
18-089-1003	Gary-Ivanhoe	24.7
18-089-2010	Hammond-Clark H.S.	24.1

Conclusions

As demonstrated above, the two monitoring sites (Cicero and Wilson Avenue) in Cook County, Illinois that currently measure fine particle concentrations above the standard are affected by “urban excess”, mostly attributable to localized mobile sources.

If emissions deriving from Lake and Porter counties were significantly contributing to the violating monitors in Illinois, we would expect to see similar elevated values at the sites located between Lake and Porter counties and the Cicero and Wilson Ave., and in Lake and Porter counties.

The location of the two violating monitors in Northeast Illinois results in elevated concentrations representative of “urban excess”, primarily attributable to localized mobile source emissions. Indiana is confident that its contribution to this localized effect is negligible.

3.4 Quality Assurance

IDEM has quality assured all data shown in the tables above and included in Appendix A in accordance with 40 CFR 58.10 and the Indiana Quality Assurance Manual. IDEM has recorded the data in the AQS database and, thus, the data is available to the public.

3.5 Continued Monitoring

Indiana commits to continue monitoring of fine particles at the sites indicated in Table 3.1 and Appendix A. IDEM will consult with U.S. EPA Region V staff prior to making changes to the existing monitoring network, should changes become necessary in the future. IDEM will continue to quality assure the monitoring data to meet the requirements of 40 CFR 58. IDEM will continue to enter all data into AQS on a timely basis in accordance with federal guidelines.

4.0 EMISSION INVENTORY

The U.S. EPA's Redesignation Guidance requires the submittal of a comprehensive inventory of fine particles and precursor emissions of fine particles (SO₂, direct PM_{2.5} and NO_x) representative of the year when the area achieves attainment of the annual standard for fine particles. Indiana must also demonstrate that the improvement in air quality between the year that violations occurred and the year that attainment was achieved is based on permanent and enforceable emission reductions. Other emissions inventory related requirements include:

- projection of the emission inventory to a year at least ten (10) years following redesignation;
- a demonstration that the projected level of emissions is sufficient to maintain the annual fine particles standard; and,
- a commitment to provide future updates of the inventory to enable tracking of emission levels during the ten (10) year maintenance period.

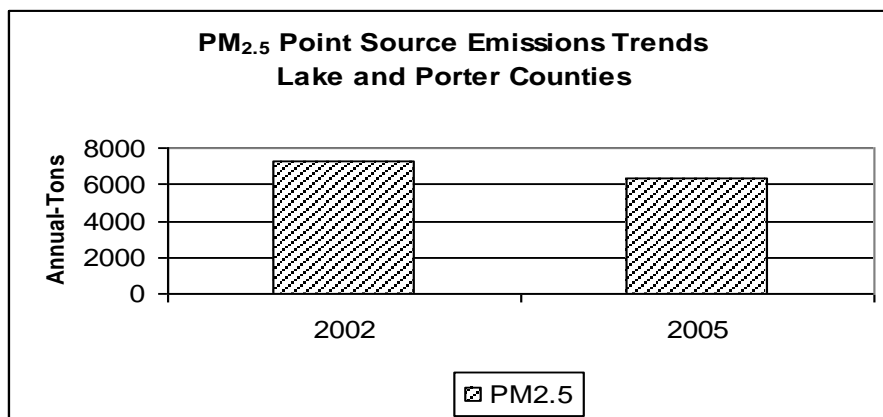
Consistent with the federal implementation rule for fine particles, Indiana does not consider volatile organic compounds or ammonia to be significant contributors of fine particles. The following subsections address each of these requirements.

4.1 Emission Trends

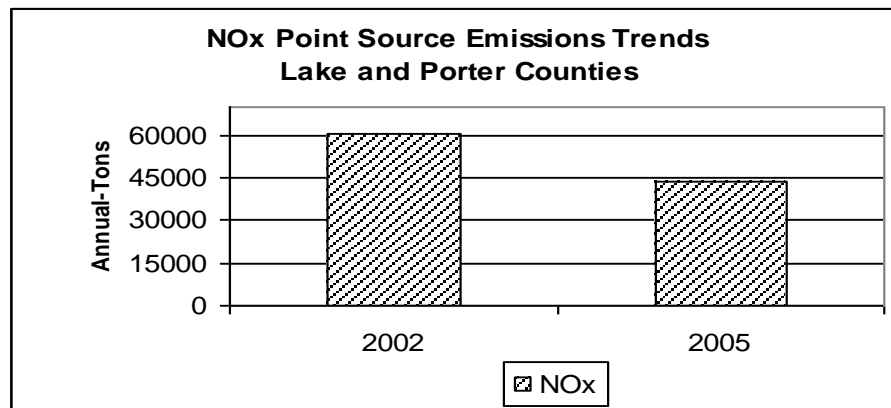
Point Sources

Graphs 4.1, 4.2 and 4.3 show the trend in point source emissions of direct PM_{2.5}, NO_x and SO₂ respectively that generally correspond to the years of monitored values referenced in this petition. The point source data is taken from Indiana's annual emissions reporting program. Point source emissions for NO_x, SO₂ and direct PM_{2.5} have decreased since 2002.

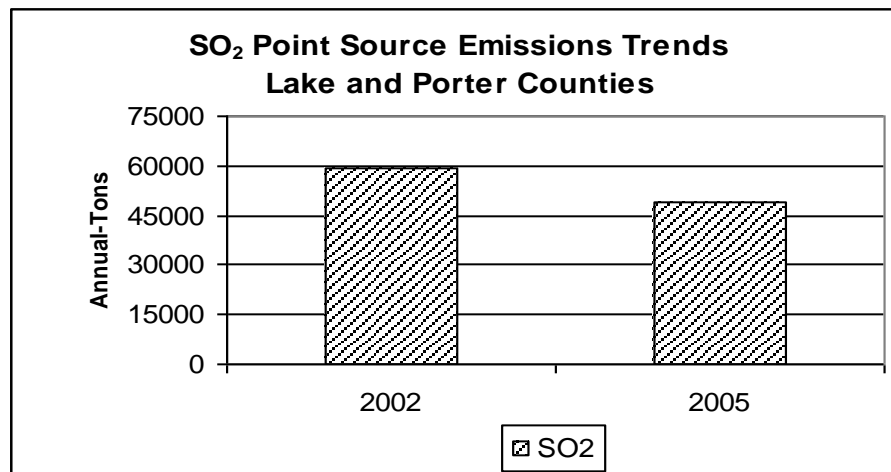
Graph 4.1
PM_{2.5} Point Source Emissions Trends – Lake and Porter Counties
2002 and 2005



Graph 4.2
NO_x Point Source Emissions Trends – Lake and Porter Counties
2002 and 2005



Graph 4.3
SO₂ Point Source Emissions Trends – Lake and Porter Counties
2002 and 2005



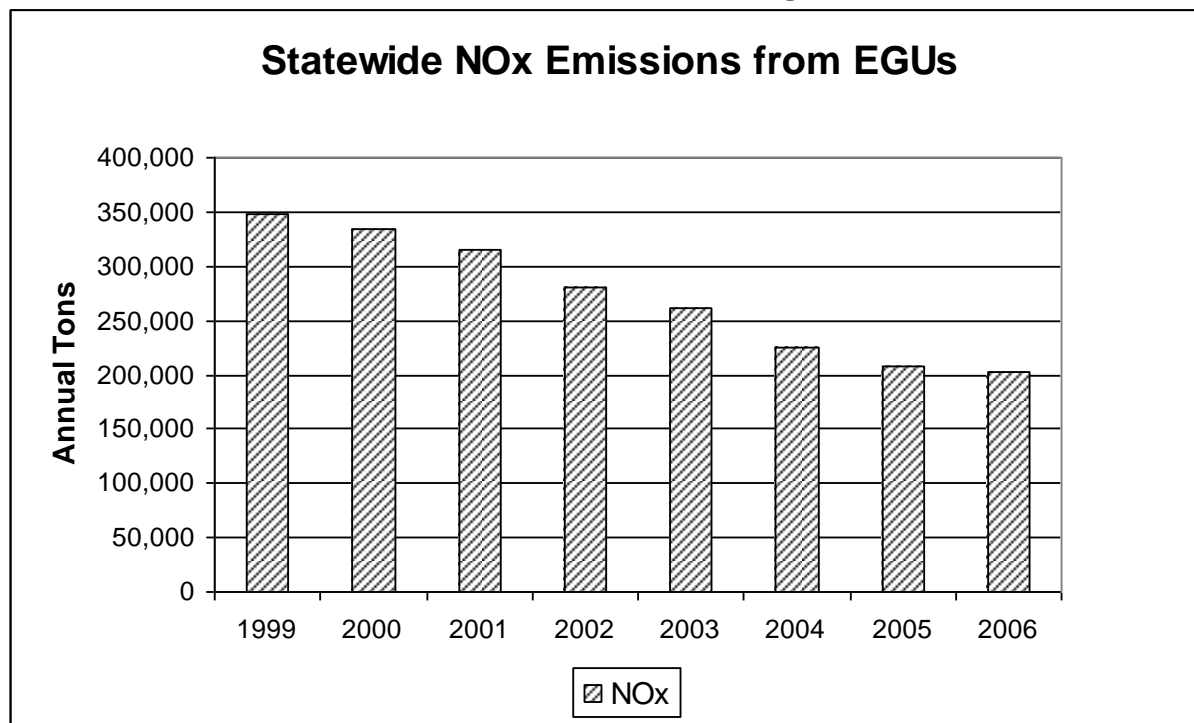
EGU Sources

Regional NO_x emission reductions affect fine particle levels in northwest Indiana. Graph 4.4 depicts the substantial decrease in statewide NO_x emissions from EGUs. While fine particles and the associated precursors are transported into this region from outside the area, this information provides some indication of the impact that Indiana EGU sources may have on the nonattainment area. The emissions are decreasing substantially in response to national programs affecting all EGUs such as the Acid Rain program, the NO_x SIP Call and CAIR. Other sectors of the inventory also impact fine particle formation, but large regional sources such as EGUs have a substantial impact on fine particle levels.

This data were taken from U.S. EPA's Clean Air Markets database³. Data are available sooner for these units than other point sources in the inventory because of the NO_x SIP Call budget and trading requirements.

As part of the NO_x SIP Call, the states were required to adopt into their rules a budget for all large EGUs. Indiana's budget is referenced in 326 IAC 10-4. The budget represents a statewide cap on NO_x emissions. Although each unit is allocated emissions based upon historic heat input, utilities can meet this budget by over-controlling certain units or purchasing credits from the market to account for overages at other units. To summarize, NO_x emissions have dramatically decreased over the years represented on these graphs. These emissions, capped by the state rule, should remain at least this low through the maintenance period covered by this request.

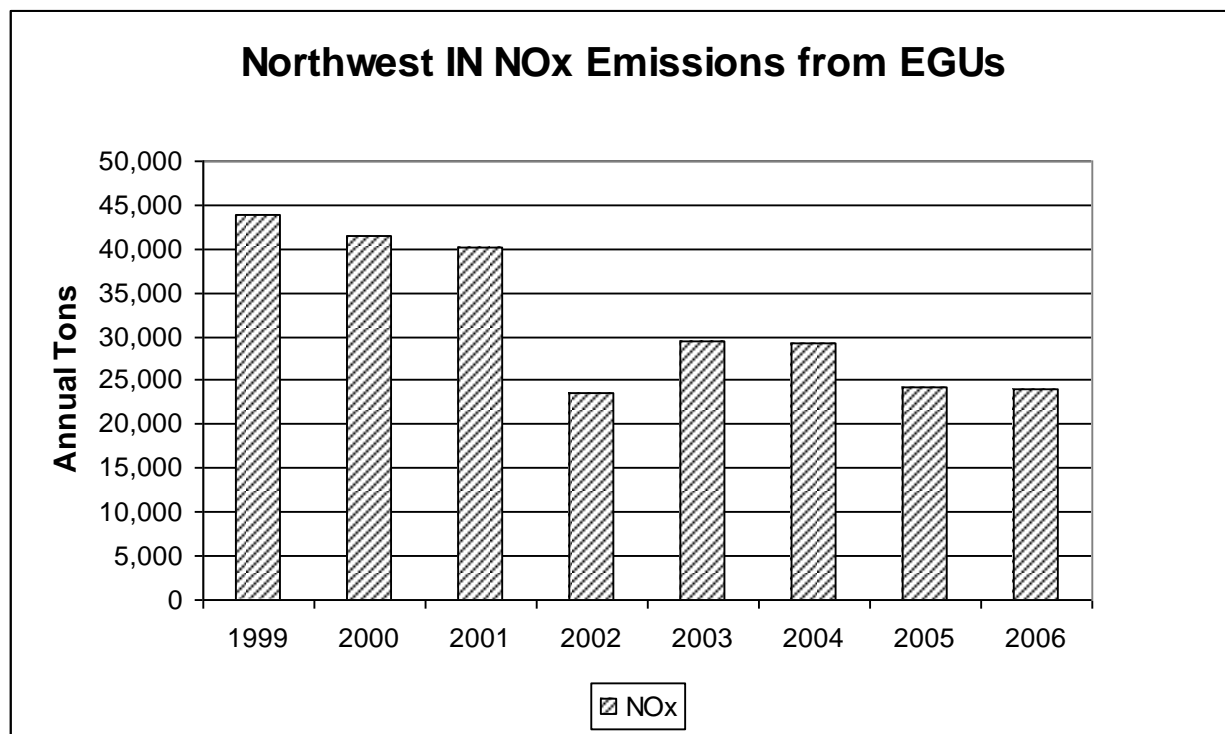
Graph 4.4
Statewide NO_x Emissions from Electric Generating Units
Annual Emissions - 1999 through 2006



Graph 4.5

³<http://www.epa.gov/airmarkets>

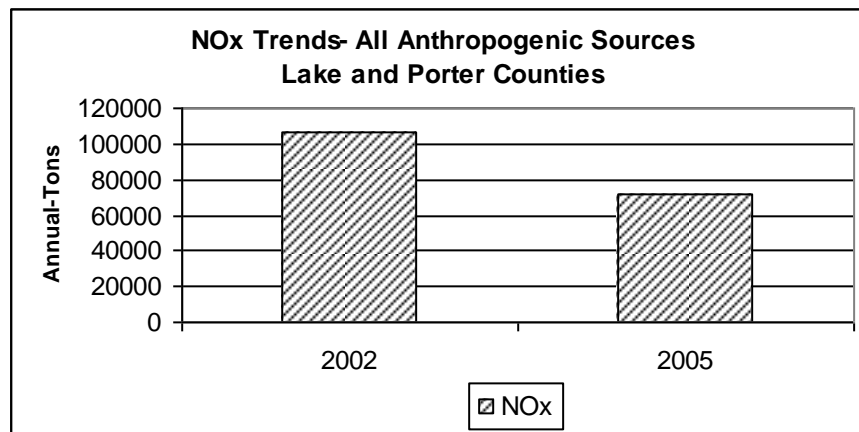
**Lake and Porter Counties NOx Emissions from Electric Generating Units
Annual Emissions - 1999 through 2006**



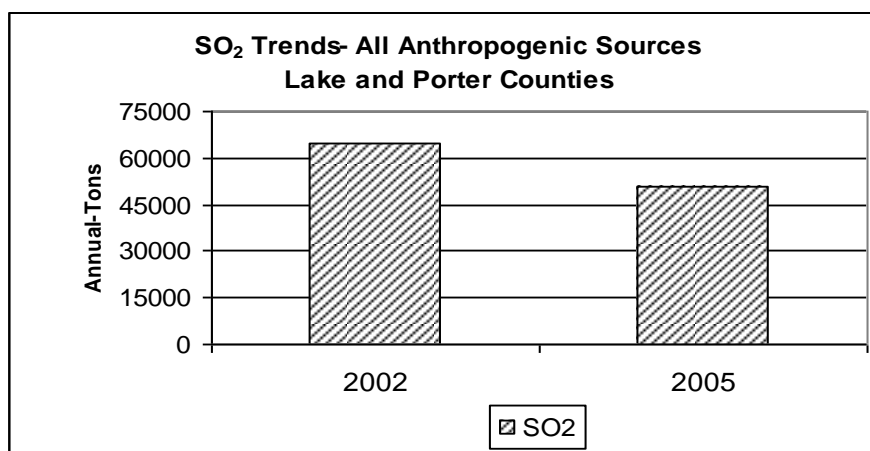
All Anthropogenic Sources

Periodic inventories, which include emissions from all sectors (mobile, area, non-road, and point sources), were prepared for 2005 and are included in Appendix C. Graphs 4.6, 4.7 and 4.8 show the trends for the total emissions for all anthropogenic source categories in 2002 and 2005, which also roughly follow the years of monitored trends discussed in Section 3.0. Graphs and data tables of emissions from each source category are available in Appendix C.

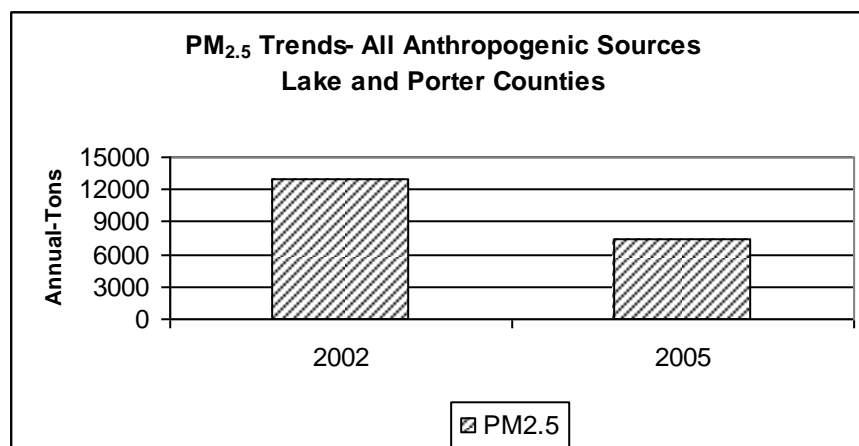
Graph 4.6
NO_x Emissions Trends, All Sources in the Northwest Indiana Area
2002 and 2005



Graph 4.7
SO₂ Emissions Trends, All Sources in the Northwest Indiana Area
2002 and 2005



Graph 4.8
PM_{2.5} Emissions Trends, All Sources in the Northwest Indiana Area
2002 and 2005



4.2 Base Year Inventory

IDEM prepared a comprehensive inventory for Lake and Porter counties, including area, mobile, non-road and point sources for direct PM_{2.5} and precursors of fine particles (nitrogen oxides and sulfur dioxide) for base year 2005 (the middle year of the area's attainment design value).

- Area source emissions were taken from the Indiana 2005 periodic inventory submitted to U.S. EPA.
- Mobile source emissions were calculated from MOBILE6.2 produced emission factors and data extracted from the region's travel-demand model.
- Point source information was compiled from IDEM's annual emissions statement database.
- Biogenic emissions are not included in these summaries.
- Non-road emissions were modeled using an estimation model provided by U.S. EPA.

To address concerns about the accuracy of some of the categories in U.S. EPA's non-road emissions model, the Lake Michigan Air Directors' Consortium (LADCO) (Midwest Regional Planning Organization), contracted with two (2) companies to review the base data and make recommendations. One of the contractors also estimated emissions for two (2) non-road categories not included in U.S. EPA's non-road model. Emissions were estimated for commercial marine vessels and railroads. Recreational motorboat population and spatial surrogates (used to assign emissions to each) were significantly updated. The populations for the construction equipment category were reviewed and updated based upon surveys completed in the Midwest and the temporal allocation for agricultural sources was also updated.

Appendices B and C contain data tables and graphs of these emissions.

4.3 Emission Projections

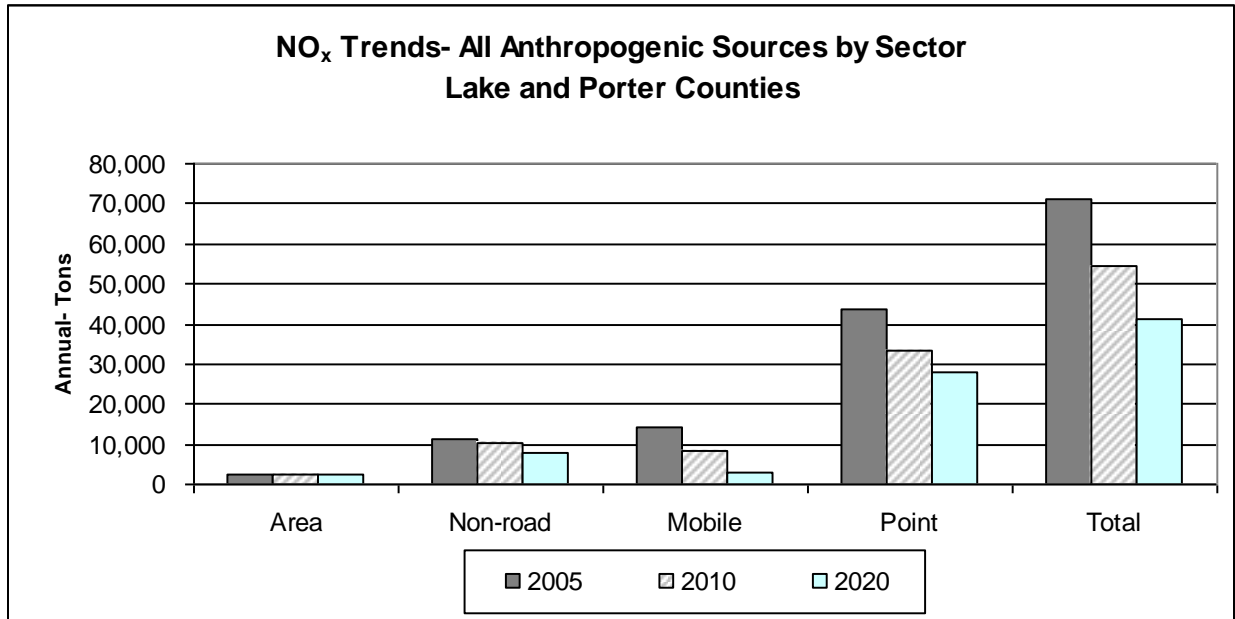
In consultation with the U.S. EPA and other stakeholders, IDEM selected the year 2020 as the maintenance year for this redesignation request. This document contains projected emissions inventories for 2010 and 2020 for Lake and Porter counties. These emissions projections were prepared by IDEM, with assistance from LADCO.

The detailed inventory information for the Northwest Indiana area for 2010 and 2020 is in Appendix B. Emission trends are an important gauge for continued compliance with the annual standard for fine particles. Therefore, IDEM performed an initial comparison of the inventories for the base year (2005), interim year (2010), and maintenance year (2020⁴) for Lake and Porter counties. Graphs 4.9, 4.10 and 4.11 visually compare the 2005 (base year) estimated emissions with the 2010 and 2020 projected emissions for Lake and Porter counties. Mobile source emission inventories are described in Section 5.0. In addition to LADCO's estimates, point source emissions were projected based upon the statewide EGU NO_x budgets from the Indiana NO_x rule. It should be noted that EGU emission estimates for 2010 and 2018 were projected utilizing Annual Energy Outlook Supplemental tables. These tables were generated for the reference case of the Annual Energy Outlook 2007 (AE2007) using the National Energy Modeling System.

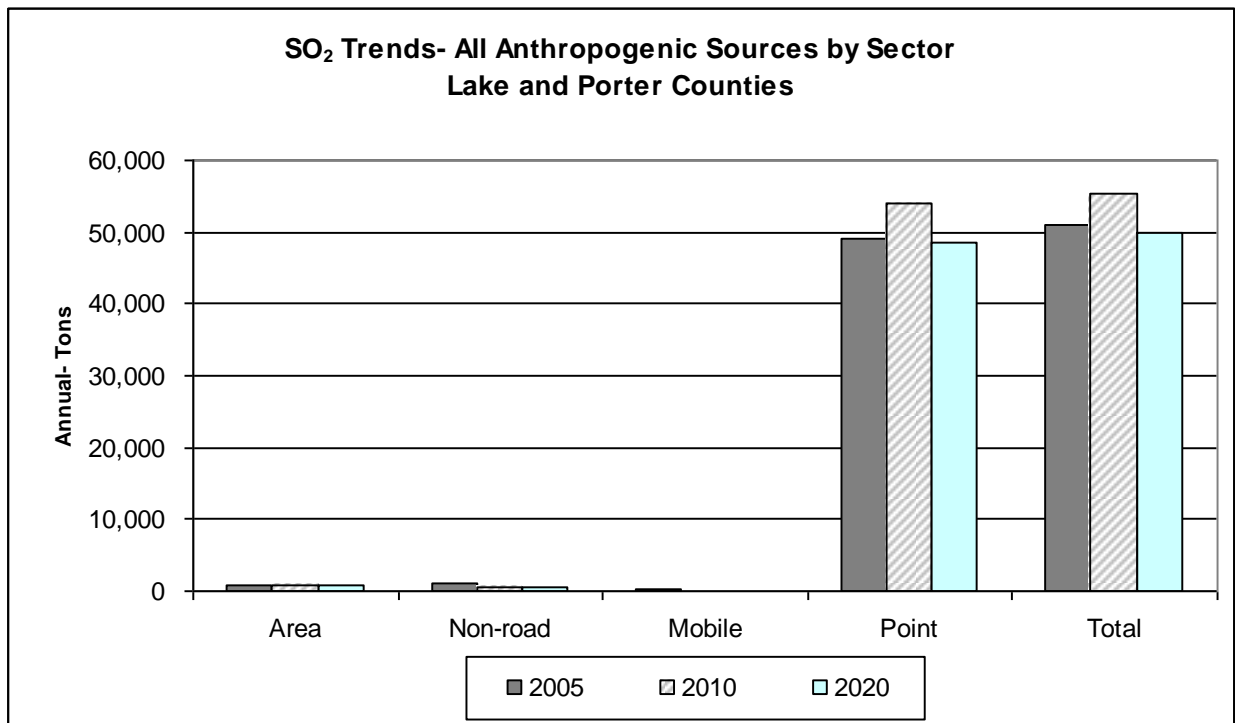
Graph 4.9 Comparison of 2005 Emissions and 2010 and 2020 Projected Annual NO_x Emissions

⁴ EGU emission projections for the year 2020 are based on 2018 emission estimates.

Lake and Porter Counties



Graph 4.10
**Comparison of 2005 Emissions and 2010 and 2020 Projected Annual SO₂ Emissions
Lake and Porter Counties**



Graph 4.11
**Comparison of 2005 Emissions and 2010 and 2020 Projected Annual PM_{2.5} Emissions
Lake and Porter Counties**

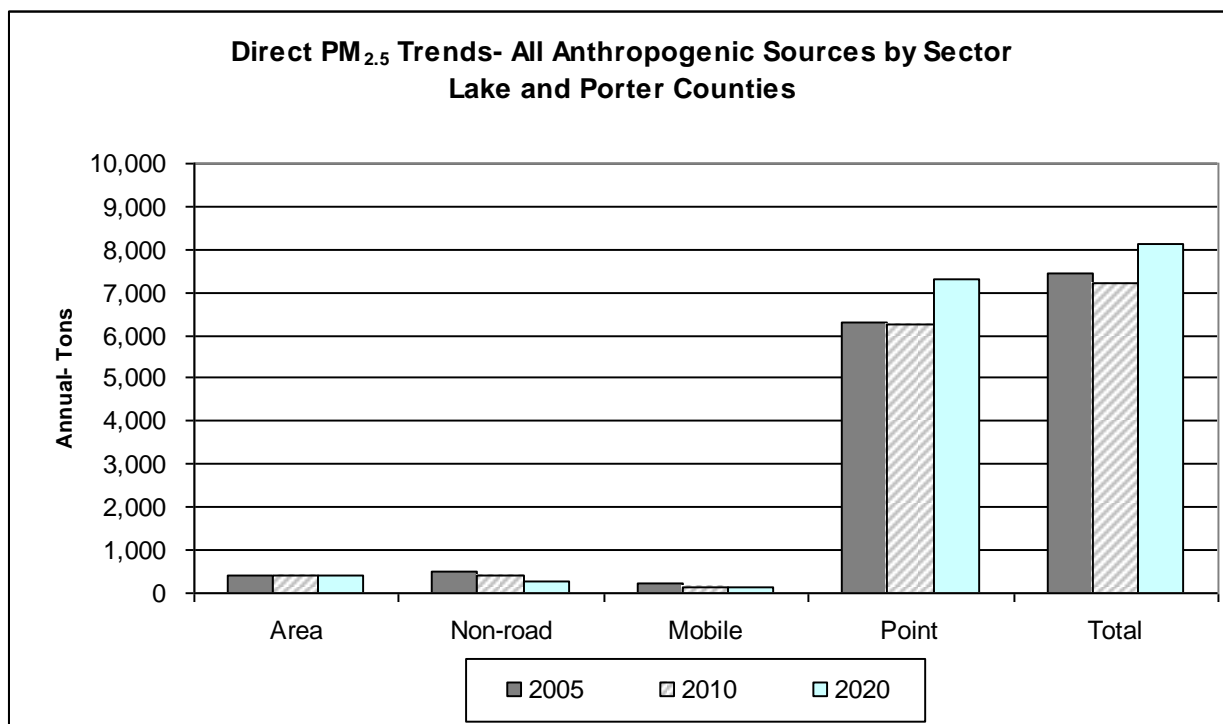


TABLE 4.1
Comparison of 2005 Estimated and 2020 Projected Annual Emission Estimates
Northwest Indiana Area

	2005	2020	Change	% Change
NO_x (tons/year)	71,282.12	41,363.20	(29,918.92)	(41.97)
SO₂ (tons/year)	50,993.81	49,799.70	(1,194.11)	(2.34)
Direct PM_{2.5} (tons/year)	7,434.48	8,135.17	700.69	9.42

NO_x emissions within the Northwest Indiana area are projected to decline by almost 42% between 2005 and 2020. Emission reduction benefits from U.S. EPA rules covering the NO_x SIP Call, Tier 2 Motor Vehicle Emissions Standards and Gasoline Sulfur Control Requirements⁵ Highway Heavy-Duty Engine Rule⁶ and Non-Road Diesel Engine Rule⁷ are factored into the changes. Further, due to implementation of the NO_x SIP Call across the eastern United States, fine particles and precursors for fine particle emissions entering this area are also decreased. The Clean Air Interstate Rule (CAIR), issued in March 2005, adopted by the Indiana Air Pollution Control Board on November 1, 2006, and to be implemented by 2009, will reduce regional EGU NO_x emissions statewide by approximately another 17% in 2015. Since CAIR is a regional cap and trade program, it cannot be guaranteed at this time what effect it will have on EGU units located in Lake and Porter counties. However, regional reductions of both SO₂ and NO_x will be achieved and further benefit local air quality.

4.4 Demonstration of Maintenance

Ambient air quality data from all the monitoring sites indicate that air quality in the Northwest Indiana area has met the NAAQS for the annual fine particles standard since the three-year period ending in 2004. U.S. EPA's Redesignation Guidance (Page 9) states, "A state may generally demonstrate maintenance of the NAAQS by either showing that future emissions of a pollutant or its precursors will not exceed the level of the attainment inventory, or by modeling to show that the future mix of sources and emissions rates will not cause a violation of the NAAQS." Emissions projections outlined in Section 4.0 of this document clearly illustrate that NO_x and SO₂ emissions will continue to decline between 2005 (base year) and 2020 (maintenance plan horizon). Section 7.0 further discusses the implications of these emissions trends and provides an analysis to support these conclusions. Therefore, air quality should meet the annual fine particles standard through the projected years of 2010 and 2020.

In Indiana, major point sources in all counties are required to submit air emissions information once every three (3) years or annually if the SO₂ potential to emit is greater than 2500 tons or the NO_x potential to emit is greater than 2500 tons, in accordance with the Emission Statement Rule, 326 IAC 2-6. IDEM prepares a new periodic inventory for fine particles and fine particles precursor emission sectors every three (3) years. These fine particles precursor emission inventories will be prepared for 2008, 2011, 2014 and 2017 as necessary to comply with the inventory reporting requirements established in the CAAA. Emissions information will be compared to the 2005 base year and the 2020 projected maintenance year inventories to assess emission trends, as necessary, to assure continued compliance with the annual fine particles standard.

4.5 Permanent and Enforceable Emission Reductions

Permanent and enforceable reductions of sulfur dioxides, direct PM_{2.5}, and oxides of nitrogen have contributed to the attainment of the annual standard for fine particles. Some of these reductions were due to the implementation of the NO_x SIP Call, and some were due to the application of tighter federal standards on new vehicles and fuels. Section 6.0 identifies the emission control measures specific to Lake and Porter counties, as well as the implementation status of each measure.

4.6 Provisions for Future Updates

As required by Section 175A(b) of the CAAA, Indiana commits to submit to the Administrator, eight (8) years after redesignation, an additional revision of this SIP. The revision will contain Indiana's plan for maintaining the national primary fine particles air quality standard for ten (10) years beyond the first ten (10) year period after redesignation.

⁵ <http://www.epa.gov/fedrgstr/EPA-AIR/2000/February/Day-10/a19a.htm>

⁶ <http://www.epa.gov/fedrgstr/EPA-AIR/1997/October/Day-21/a27494.htm>

⁷ <http://www.epa.gov/fedrgstr/EPA-AIR/1998/October/Day-23/a24836.htm>

5.0 TRANSPORTATION CONFORMITY BUDGETS

5.1 On-Road Emission Estimations

The Northwest Indiana Regional Planning Commission (NIRPC) is the Metropolitan Planning Organization (MPO) for the area that includes Lake, Porter and LaPorte counties. This organization maintains a travel demand forecast model that is used to simulate the traffic in the area and to predict what that traffic would be like in future years given growth expectations. The model is used mostly to identify where travel capacity will be needed and to determine the infrastructure requirements necessary to meet that need. It is also used to support the calculation of mobile source emissions. The travel demand forecast model is used to predict the total daily Vehicle Miles Traveled (VMT) and an EPA software program called MOBILE6 is used to calculate the emissions per mile. The product of these two outputs, once combined, is the total amount of pollution emitted by the on-road vehicles for the particular analyzed area.

5.2 Overview

Broadly described, MOBILE6 is used to generate “emission factors”, which are the average emissions per mile (grams/mile) for direct PM_{2.5} and PM_{2.5} precursors, including NO_x and SO₂. There are numerous variables that can affect the emission factors. The vehicle fleet (vehicles on the road) age and the vehicles-types have a major effect on the emission factors. The facility-type the vehicles are traveling on (MOBILE6 facility-types are Freeway, Arterial, Local and Ramp) and the vehicle speeds also affect the emission factor values. Meteorological factors such as air temperature and humidity, and the area’s Inspection/Maintenance program affect the emission factors as well. Once emission factors are determined, the emission factor(s) is multiplied by the vehicle-miles-traveled (VMT) to ultimately determine the quantity of vehicle emissions. VMT data is generated by the region’s travel demand model. The VMT values are scaled to account for the differences between the model and the Highway Performance Monitoring System (HPMS) for the calibration base year. An example mobile source input/output file is included in Appendix G.

5.3 Best Available Data

Depending on the details of the travel demand model, much of MOBILE6 input data for emission factor computation can be found in the model, but some must come from other sources.

The NIRPC travel demand model has more detailed data than most models. While almost all models contain traffic speed and road-type data, the NIRPC model contains information for vehicle-type as well. It monitors the movement of three vehicle-types: (1) cars, (2) light freight trucks and buses and (3) heavy trucks. The model also does a better job of speed analysis because it describes three (3) times of day: (1) three AM (morning) peak hours, (2) three PM (afternoon) peak hours, and (3) three off peak hours. This allows for a much more thorough and accurate analysis of speeds over the course of the day.

Vehicle Age Distribution

MOBILE6 has sixteen (16) different vehicle-type categories differentiated by weight. The first five (5) are generally passenger vehicles: cars, vans and SUVs. The others are different sized trucks and buses and the last is motorcycles. This MOBILE6 vehicle age distribution describes what fraction of each of the 16 vehicle-types is one year old, two years old, etc., up to the 25-and-older category. MOBILE6 has a default age profile of each vehicle-type taken from national surveys.

Due to its geographic proximity to Chicago, Northwestern Indiana is a through-traffic area for an enormous amount of freight transportation. National default age profiles make sense to use for freight vehicles, but for passenger vehicles, local data exists and was used for the age distribution for these first 5 MOBILE6 vehicle-types.

Vehicle Identification Numbers (VIN) provided by the Indiana Bureau of Motor Vehicles (BMV) for the year 2003 for Lake and Porter counties were decoded and split into the first five (5) MOBILE6 vehicle-types. These age distributions are not expected to change much over time so they do not change for the different analysis years.

Speeds

Speeds can be an input to MOBILE6 in two different ways. MOBILE6 assumes Local and Ramp facility-types have fixed speeds of 12.9 and 34.6 mph, respectively. This cannot be changed; only Arterial and Freeway speeds can be input to MOBILE6. There is an Average Speed command that allows the average Freeway or Arterial speeds to be input. This is used extensively when building cross-reference tables for the emission factors mentioned previously. The most accurate and thorough MOBILE6 speed input method is to input speeds via two speed tables (one for each facility-type) which contain the fraction of VMT for each hour of the day that occurs in 14 speed-bins: 0-2.5mph, 2.5-7.5mph...up to >62.5 mph. Speeds that occur during the peak hours would be slower than the off peak, for example MOBILE6 does contain national average default speeds that are useful for comparison purposes.

NIRPC uses the latter, more thorough method of inputting speeds. The travel model data is used for speed calculations. Each link of roadway has a speed calculated using the formulas shown below. The link volume, length and calculated speed are used to determine the VMT fraction to place into the proper speed bin in the speed tables.

The BPR (Bureau of Public Roads) Formula is used as follows:

$$\text{Amtime} = \text{length} / (\text{posted speed} * 1.1) * 60 * (1 + 0.15 * (\text{volume} / (2.55 * \text{capacity per lane} * \text{lanes}))^4)$$

$$\text{Pmtime} = \text{length} / (\text{posted speed} * 1.1) * 60 * (1 + 0.15 * (\text{volume} / (2.84 * \text{capacity per lane} * \text{lanes}))^4)$$

$$\text{Optime} = \text{length} / (\text{posted speed} * 1.1) * 60 * (1 + 0.15 * (\text{volume} / (12 * \text{capacity per lane} * \text{lanes}))^4).$$

$$\text{speed} = \text{length} * 60 / \text{xxtime}$$

Socioeconomic data

Travel demand models contain hundreds of Travel Analysis Zones (TAZs) that have zone-specific information regarding population, employment, destinations and expected growth, among other things. This data is commonly referred to as the “socioeconomic data”. This data is updated most accurately when new census data comes out. This model was updated in 2003 based on 2000 census data. The traffic analyses of future years are then based on growth projections. These growth projects are then put into the TAZs where the growth (or decline) is expected to occur.

5.4 Analysis Years

The travel demand model also contains the road network, thus, the information is time specific. NIRPC has modeled the years 2005, 2010 and 2020. Each future analysis year model scenario contains the road network NIRPC expects to exist at the beginning of that year with the accompanying expected socioeconomic growth projections.

5.5 Emission Estimations

Table 5.1 outlines the on-road emissions estimates for Lake and Porter counties for the years 2005, 2010 and 2020.

Table 5.1
Emission Estimates for On-Road Mobile Sources

	2005	2010	2020
VMT (1,000 miles/day)	18,628,125	17,406,167	20,633,938
PM _{2.5} (tons/year)	229.39	159.16	114.31
NO _x (tons/year)	14,095.55	8,459.90	3,002.86

5.6 Motor Vehicle Emission Budget

Table 5.2 contains the motor vehicle emissions budgets for Lake and Porter counties for the years 2010 and 2020.

Table 5.2
Motor Vehicle Emission Budgets

Year	2010	2020
PM _{2.5} (tons/yr)	167.12	125.74
NO _x (tons/yr)	8,882.90	3,303.15

Consistent with the federal implementation rule for fine particles, Indiana does not consider mobile source sulfur dioxide (SO₂) emissions to be a significant contributor to fine particles for this nonattainment area, as mobile source SO₂ emissions constitutes less than one percent (<1%) of the area's total anthropogenic SO₂ emissions.

These Budgets include the emission estimates calculated for 2010 and 2020. The emission estimates are derived from the NIRPC travel demand model and MOBILE6 as described above. Through the interagency consultation process, it was determined that an interim Budget for the year 2010, in addition to the Budget for the year 2020, would be appropriate. A reasonable margin of safety has been applied to the 2010 and 2020 Budgets in the amount of 5% and 10% respectively. Margins of safety are used to accommodate the wide array of assumptions that are factored into the calculation process. Since assumptions change over time, it is necessary to have a margin of safety that will accommodate the impact of refined assumptions in the process. The emissions calculation methodology and latest planning assumptions were determined through the interagency consultation process described in the Transportation Conformity Memorandum of Understanding (MOU) for NIRPC.

6.0 CONTROL MEASURES AND REGULATIONS

This section provides specific information on the control measures implemented in Lake and Porter counties, including CAAA requirements and additional federal, state or local measures implemented beyond CAAA requirements.

6.1 Reasonably Available Control Technology (RACT)

As required by Section 172 of the CAAA, Indiana in the mid-1990s promulgated rules requiring RACT for emissions of VOCs. There were no specific rules required by the CAA such as RACT for existing sources beyond statewide rules. Statewide RACT rules have applied to all new sources locating in Indiana since that time. The Indiana rules are found in 326 IAC 8. The following is a listing of applicable rules:

- 326 IAC 8-1 Best Available Control Technology-New Facilities
- 326 IAC 8-2 Surface Coating Emission Limitations
- 326 IAC 8-3 Solvent Degreasing Operations
- 326 IAC 8-4 Petroleum Sources
- 326 IAC 8-5 Miscellaneous Operations
- 326 IAC 8-6 Organic Solvent Emission Limitations

Additional rules specifically applicable to Lake and Porter counties are summarized in Section 6.2.

Since Lake and Porter counties attained the annual standard for fine particles prior to an Attainment or RACT SIP being due, and since the implementation rule for fine particles stipulates that states are only required to draft and implement RACT rules for the precursor emission reductions necessary to attain the standard, no further RACT rules are required for this area. However, it should be noted that the majority of major sources for NO_x within Lake and Porter counties are subject to the NO_x SIP Call, thereby meeting RACT requirements for NO_x. Therefore, any reductions to be gained through the applicability of NO_x RACT for Lake and Porter counties would be negligible.

6.2 Implementation of Past SIP Revisions

Lake and Porter counties were previously nonattainment under the 1-hour ozone standard. The area met all of its 1-hour SIP obligations, including an EPA-approved attainment demonstration. All of the control measures outlined within the *Post-1999 (2002, 2005, and 2007) Rate of Progress* plans have been fully implemented. The area was also designated nonattainment for ozone under the 8-hour standard in 2004. Since that time, the area has attained the 8-hour ozone standard and a redesignation request is pending approval with U.S. EPA. Therefore, no further SIP revisions are required.

The following outlines the measures implemented in association with previous SIP submittals that have resulted in permanent and enforceable emission reductions in Lake and Porter counties:

Fifteen Percent Rate of Progress (ROP) Plan

Indiana's final 15% ROP plan was approved by U.S. EPA on July 18, 1997. The measures include a mix of point, area, and mobile source control measures:

1. Enhanced vehicle inspection and maintenance program

Regulatory Basis: 326 IAC 13-1.1

Implementation Status: Control remains in place.

2. Stage II Vapor Recovery

Regulatory Basis: 326 IAC 8-11-2

Implementation Status: Control remains in place.

3. Reformulated gasoline program

Regulatory Basis: CAAA-Federal Control Program

Implementation Status: Control remains in place.

4. National Volatile Organic Compound Emission Standards for Architectural Coatings Rule

Regulatory Basis: 40 CFR Part 59

Implementation Status: Control remains in place.

5. Residential opening burning ban

Regulatory Basis: 326 IAC 4-1

Implementation Status: Control remains in place for all incorporated areas.

6. Non-CTG RACT

Regulatory Basis: 326 IAC 8

Implementation Status: Control remains in place.

1999 Nine Percent Rate of Progress (ROP) Plan

Indiana's final 1999 nine percent ROP plan was approved by U.S. EPA on January 26, 2000. The reductions included a variety of state and federal measures that affected various industrial and area sources, such as steel mills, small engines (e.g. lawnmowers), gasoline reformulation, and personal solvent usage. The measures included the following:

1. The National Emission Standards for Benzene from Coke Oven By-Product Recovery Plants

Regulatory Basis: 40 CFR 61 Subpart L

Implementation Status: Control remains in place.

2. National Emission Standards for Coke Oven Batteries

Regulatory Basis: 40 CFR 63 Subpart L

Implementation Status: Control remains in place.

3. Federal Phase I Reformulated Gasoline on Small Non-road Engines

Regulatory Basis: Clean Air Act Amendments of 1990; Section 211 of the Clean Air Act

Implementation Status: Control remains in place.

4. Federal Controls on Small Spark-ignited Engines

Regulatory Basis: Court-ordered standards for small spark-ignited engines; 40CFR Part 90

Implementation Status: Control remains in place.

5. Commercial/Consumer Solvent Reformulation Rule

Regulatory Basis: Clean Air Act Amendments of 1990; Federal Rule 60 FR 15264

Implementation Status: Control remains in place.

6. Volatile Organic Liquid Storage RACT

Regulatory Basis: 326 IAC 8-9

Implementation Status: Control remains in place.

2002 Nine Percent Rate of Progress (ROP) Plan

Indiana's 2002 nine percent ROP plan consists of several federal regulations and some measures specific to Indiana, including state rules and negotiated agreements. The reductions included measures that control the VOC emissions from steel mill sinter plans, non-road mobile sources, and municipal solid waste landfills. The measures included the following:

1. Additional Reductions from Federal Controls on Small Spark-ignited Engines

Regulatory Basis: Court-ordered standards for small spark-ignited engines; 40 CFR Part 90

Implementation Status: Control remains in place.

2. Sinter Plant Rule

Regulatory Basis: 326 IAC 8-13

Implementation Status: Control remains in place.

3. Municipal Solid Waste Landfill

Regulatory Basis: State rule based on the federal New Source Performance Standards for new and existing sources (326 IAC 8-8 and 326 IAC 8-8.1)

Implementation Status: Control remains in place.

2005 Nine Percent Rate of Progress (ROP) Plan

Since there were surplus emission reductions from previous plans, no emission reductions were necessary to meet the additional 9% reduction in VOC emissions for the 2005 ROP. However, the plan includes a federal regulation that will further reduce the amount of VOCs emitted by non-road small engine sources. The measure includes the following:

1. Further Reductions from Federal Controls on Small Spark-ignited Engines

Regulatory Basis: Federal Standards for small spark-ignited engines; 40CFR Part 90

Implementation Status: Control remains in place.

2007 Six Percent Rate of Progress (ROP) Plan

Indiana's 2007 six percent ROP plan consists of several federal regulations and some measures specific to Indiana, including state rules and negotiated agreements. The reductions included measures that control the VOC emissions from petroleum refineries, non-road mobile sources, volatile organic liquid storage operations, cold cleaning degreasing operations, and the reformulation of commercial and consumer products. The measures included the following:

1. Further Reductions from Federal Controls on Small Spark-ignited Engines

Regulatory Basis: Court-ordered standards for small spark-ignited engines; 40 CFR Part 90

Implementation Status: Control remains in place.

2. Commercial/Consumer Solvent Reformulation Rule

Regulatory Basis: Clean Air Act Amendments of 1990; Federal Rule 60 FR 15264

Implementation Status: Control remains in place.

3. Petroleum Refineries NESHAP

Regulatory Basis: Clean Air Act Amendments of 1990

Implementation Status: Control remains in place.

4. United States Steel Agreed Order with IDEM (March 1996)

Control Method: Halts the use of untreated water for quenching (NESHAP-Post ROP)).

Implementation Status: Control remains in place.

5. Volatile Organic Liquid Storage RACT

Regulatory Basis: 326 IAC 8-9

Implementation Status: Control remains in place.

6. Cold Cleaners

Regulatory Basis: 326 IAC 8-3-8

Implementation Status: Control remains in place.

6.3 Nitrogen Oxides (NO_x) Rule

The U.S. EPA NO_x SIP Call required twenty-two (22) states to adopt rules that would result in significant emission reductions from large EGUs, industrial boilers, and cement kilns in the eastern United States. Indiana adopted this rule in 2001. Beginning in 2004, this rule accounts for a reduction of approximately thirty-one percent (31%) of all NO_x emissions statewide compared to previous uncontrolled years. Within Lake and Porter counties, most of the sources (almost all major sources for NO_x) that would be affected by NO_x RACT are subject to the NO_x SIP Call, which meets NO_x RACT requirements.

Twenty-one (21) other states have also adopted these rules. The result is that significant reductions have occurred within the Northwest Indiana area nonattainment area because of the number of affected units within the region. From Graphs 4.4 and 4.5 it can be seen that emissions covered by this program have been trending downward since 1999. Table 6.1, compiled from data taken from the U.S. EPA Clean Air Markets website, quantifies the gradual NO_x reductions that have occurred in Indiana as a result of Title IV (Acid Rain) of the Clean Air Act Amendments and the NO_x SIP Call Rule. This cap will stay in place through 2008, at which time the caps in the CAIR program will supersede it.

Further, U.S. EPA has recently published Phase II of the NO_x SIP Call that establishes a budget for large (greater than 1 ton per day emissions) stationary internal combustion engines. This rule will decrease emissions statewide from natural gas compressor stations by 4,263 tons during the ozone season. This rule became effective February 26, 2006. Implementation of this rule began May 1, 2007.

TABLE 6.1
Trends in Annual EGU NO_x Emissions Statewide in Indiana

STATEWIDE EGU NO_x TRENDS

Year	NO _x Emissions, tons / annual
1999	347,217
2000	334,522
2001	315,420
2002	281,146

2003	260,980
2004	224,311
2005	207,982
2006	202,728
Budget 2009-2014	108,935
Budget 2015 and later	90,779

6.4 Measures Beyond Clean Air Act SIP Requirements

Reductions in fine particle and its precursor emissions have occurred, or are anticipated to occur, as a result of federal programs. These additional control measures include:

Air Toxics Standards for Coke Ovens: Pushing, Quenching and Battery Stacks

In February 2003, EPA issued a final emissions standard to control air toxic emissions from coke oven processes known as pushing, quenching, and from battery stacks. Earlier requirements control air emissions from other points at a coke oven battery.

When fully implemented, the February 2003 standards are expected to reduce air toxic emissions from these operations by nearly 300 tons per year.

On October 4, 2004, the Environmental Protection Agency (EPA) issued final amendments to the national standards that reduce toxic air emissions from processes known as pushing and quenching, and from battery stacks on coke oven batteries. There are three sources in Lake and Porter counties affected by this standard. Coke oven batteries convert coal to coke which is used to produce iron at steel mills and foundries. These additional amendments reduced particulate matter emissions, as well as additional air toxic emissions.

NESHAP for Iron and Steel Plants

On July 6, 2006 the U.S. EPA issued final amendments to the current rule that limits emissions of toxic air pollutants from integrated iron and steel manufacturing facilities.

Integrated iron and steel manufacturing facilities convert iron ore to iron and refine the iron to produce steel. U.S. EPA established air toxics standards for these facilities in 2003. The U.S. EPA expects the standards to reduce toxic air emissions from the 17 existing plants, four of which are located in Lake and Porter counties, by about 67 tons per year and to reduce particulate matter emissions by about 5,800 tons per year.

Tier 2 Vehicle Standards

Federal Tier 2 vehicle standards will require all passenger vehicles in a manufacturer's fleet, including light-duty trucks and sport utility vehicles (SUVs), to meet an average standard of 0.07 grams of NO_x per mile. Implementation began in 2004, and was completely phased-in in 2007. The Tier 2 standards also cover passenger vehicles over 8,500 pounds gross vehicle weight rating (the larger pickup trucks and SUVs), which are not covered by the current Tier 1 regulations. For these vehicles, the standards will be phased in beginning in 2008, with full compliance in 2009. The new standards require vehicles to be 77% to 95% cleaner than those on the road today. The Tier 2 standards also reduced the sulfur content of gasoline to 30 ppm in

January 2006. Most gasoline sold in Indiana prior to January 2006 had a sulfur content of about 500 ppm. Sulfur occurs naturally in gasoline, but interferes with the operation of catalytic converters on vehicles resulting in higher NO_x emissions. Lower sulfur gasoline is necessary to achieve the Tier 2 vehicle emission standards.

Heavy-Duty Gasoline and Diesel Highway Vehicle Standards

New U.S. EPA standards designed to reduce NO_x and VOC emissions from heavy-duty gasoline and diesel highway vehicles began to take effect in 2004. A second phase of standards and testing procedures, implemented in 2007, will reduce fine particle emissions from heavy-duty highway engines, and will also reduce highway diesel fuel sulfur content to 15 ppm since the sulfur can damage emission control devices. The total program is expected to achieve a 90% reduction in direct particulate matter (PM) emissions and a 95% reduction in NO_x emissions for these new engines using low sulfur diesel, compared to existing engines using higher-content sulfur diesel.

Large Non-road Diesel Engines Standards

In May 2004, U.S. EPA promulgated new rules for large non-road diesel engines, such as those used in construction, agricultural and industrial equipment, to be phased in between 2008 and 2014. The non-road diesel rules also reduce the allowable sulfur in non-road diesel fuel by over 99%. Non-road diesel fuel currently averages approximately 3,400 ppm sulfur. This rule limited non-road diesel sulfur content to 500 ppm in 2006 and 15 ppm in 2010. The combined engine and fuel rules would reduce NO_x and PM emissions from large non-road diesel engines by over 90%, compared to current non-road engines using higher-content sulfur diesel.

Nonroad Spark-ignition Engines and Recreational Engines Standard

The new standard, effective in July 2003, regulates NO_x, VOCs and carbon monoxide (CO), for groups of previously unregulated non-road engines. The new standard applies to all new engines sold in the United States and imported after the standards went into effect. The standard applies to large spark-ignition engines (forklifts and airport ground service equipment), recreational vehicles (off-highway motorcycles and all-terrain vehicles), and recreational marine diesel engines. The regulation varies based upon the type of engine and vehicle.

The large spark-ignition engines contribute to ozone formation and ambient CO and PM levels in urban areas. Tier 1 of this standard was implemented in 2004 and Tier 2 started in 2007. Like the large spark-ignition, recreational vehicles contribute to ozone formation and ambient CO and PM levels. For the off-highway motorcycles and all-terrain vehicles, model year 2006, the new exhaust emission standard was phased-in by 50% and for model year 2007 and later, at 100%. Recreational marine diesel engines over 37 kilowatts are used in yachts, cruisers, and other types of pleasure crafts. Recreational marine engines contribute to ozone formation and PM levels, especially surrounding marinas. Depending on the size of the engine, the standard began phasing-in in 2006.

When all of the non-road spark-ignition engines and recreational engine standards are fully implemented, an overall 72% reduction in VOCs, 80% reduction in NO_x and 56% reduction in CO emissions are expected by 2020. These controls will help reduce ambient concentrations of ozone, CO and fine PM.

Together, these rules will substantially reduce local and regional sources of fine particle and its precursors. The modeling analyses discussed in Section 7.0 include these rules and show the reductions in fine particle concentrations expected to result from the implementation of these rules.

Clean Air Interstate Rule (CAIR)

On May 12, 2005, the U.S. EPA promulgated the “Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule); Revisions to Acid Rain Program; Revisions to the NO_x SIP Call”, referred to as CAIR. This rule established the requirement for States to adopt rules limiting the emission of NO_x and SO₂ and a model rule for the states to use in developing their rules. The purpose of CAIR is to reduce interstate transport of precursors to fine particles and ozone.

CAIR applies to (1) any stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbines, a generator with nameplate capacity of more than 25MWe producing electricity for sale and (2) for a unit that qualifies as a cogeneration unit during the 12-month period starting on the date that the unit first produces electricity and continues to qualify as a cogeneration unit, a cogeneration unit serving at any time a generator with a nameplate capacity of more than 25 MWe and supplying in any calendar year more than one-third of the unit’s potential electric output capacity or 219,000 MWh, whichever is greater to any utility power distribution system for sale.

This rule provides annual State caps for NO_x and SO₂ in two phases, with the Phase I caps for NO_x and SO₂ starting in 2009 and 2010, respectively. Phase II caps become effective in 2015. The U.S. EPA is allowing the caps to be met through a cap and trade program if a state chooses to participate in the program.

In response to U.S. EPA’s rulemaking, IDEM adopted its state rule in 2006 based on the federal rule. IDEM’s rule includes an annual and seasonal NO_x trading program, and an annual SO₂ trading program. This rule requires compliance beginning in 2009.

6.5 Controls to Remain in Effect

Indiana commits to maintain the control measures listed above after redesignation, or submit to U.S. EPA as a SIP revision any changes to its rules or emission limits applicable to fine particles, SO₂ or NO_x sources as required for maintenance of the fine particles standard in Lake and Porter counties.

Indiana, through IDEM’s Office of Air Quality and its Office of Enforcement, has the legal authority and necessary resources to actively enforce any violations of its rules or permit provisions. After redesignation, IDEM intends to continue enforcing all rules that relate to the emission of fine particles and its precursors in Lake and Porter counties.

6.6 New Source Review Provisions

Indiana has a long standing and fully implemented New Source Review (NSR) program that is outlined in rule 326 IAC 2. The rule includes provisions for the Prevention of Significant Deterioration (PSD) permitting program in 326 IAC 2-2. Indiana's PSD program was conditionally approved on March 3, 2003 (68 FR 9892) and received final approval on May 20, 2004 (69 FR 29071) by U.S. EPA as part of the SIP.

Any facility that is not listed in the 2005 emission inventory, or for which emission reduction credit through closing was taken in demonstrating attainment, will not be allowed to construct, reopen, modify, or reconstruct without meeting all applicable permit rule requirement. The review process will be identical to that used for new sources. Once the area is redesignated, OAQ will implement NSR for major sources through the PSD program, which requires an air quality analysis to evaluate whether the new source will threaten the NAAQS.

7.0 MODELING

Although U.S. EPA's redesignation guidance does not require modeling for fine particle nonattainment areas seeking redesignation, modeling has been performed covering the Northwest Indiana area to determine the effect of national emission control strategies on fine particle levels. This modeling analysis determined that Lake and Porter counties in Northwest Indiana are significantly impacted by regional transport of particulate matter and its precursors, and regional SO₂ and NO_x reductions are an effective way to continue to attain the annual fine particles standard in this area. Furthermore, source apportionment modeling for culpability analysis shows that Lake and Porter counties do not significantly impact current fine particle nonattainment areas in surrounding states. Future year modeled annual fine particle concentrations in Lake and Porter counties are expected to be reduced by 7% to 15% from baseline design values thereby, maintaining the current attainment status of the area. A summary of the modeling analysis is listed below.

7.1 Summary of Modeling Results to Support Federal Rulemakings

LADCO Round 5 Modeling for the Clean Air Interstate Rule (CAIR)

The Lake Michigan Air Directors Consortium (LADCO) conducted modeling to determine the impact of CAIR in the Midwest. LADCO's modeling used the Comprehensive Air Quality Model with extensions (CAMx) applied to the year 2005 meteorology, as processed by Mesoscale Model (MM5). Emissions input into the CAMx model included sulfur dioxide, nitrogen oxides, volatile organic compounds, ammonia and direct PM_{2.5} for 2005. The modeling was based on 2003 through 2006 design values. Future year modeling for 2009, 2012, and 2018 was conducted and the future year design values were determined, as shown below in Table 7.1.

Table 7.1
LADCO's Round 5 Modeling Annual PM_{2.5} Results – CAIR

Monitor ID	Monitor Name	County	Design Value 2003-2006	Basecase with CAIR - 2009	Basecase with CAIR – 2012	Basecase with CAIR – 2018
			(ug/m ³)	(ug/m ³)	(ug/m ³)	(ug/m ³)
180890006	East Chicago	Lake	14.3	13.1	13.7	13.5
180890027	Highland	Lake	13.8	12.3	13.0	12.7
180891003	Gary	Lake	14	12.4	13.4	13.4
180892004	Hammond - Purdue	Lake	14.1	12.8	13.4	13.2
180892010	Hammond - Robertsdale	Lake	13.9	12.6	13.1	12.9
181270020	Dunes Natl. Lakeshore	Porter	12.6	11.2	12.0	11.9
181270024	Ogden Dunes	Porter	13.1	11.6	12.5	12.5

Results of the LADCO CAIR modeling show that Lake and Porter counties will continue to attain the annual fine particles NAAQS of 15 µg/m³.

7.2 Speciated Modeled Attainment Test/Particulate Source Apportionment Analysis

LADCO Round 4 Modeling

Speciated Modeled Attainment Test (SMAT) is the attainment test for annual fine particles. Speciated data or the sulfates, nitrates, ammonium, organic carbon, elemental carbon, particle bound water, "other" primary inorganic particulate matter and passively collected mass

associated with fine particle mass, is calculated to determine the future year annual fine particle concentrations. SMAT results from LADCO's Round 4 modeling for the years 2009, 2012, and 2018 are listed below. Each percent represents a positive reduction compared to 2002 speciation data.

Table 7.2
LADCO's Round 4 PSAT/SMAT Modeling Results in Percent Reduction
Lake County

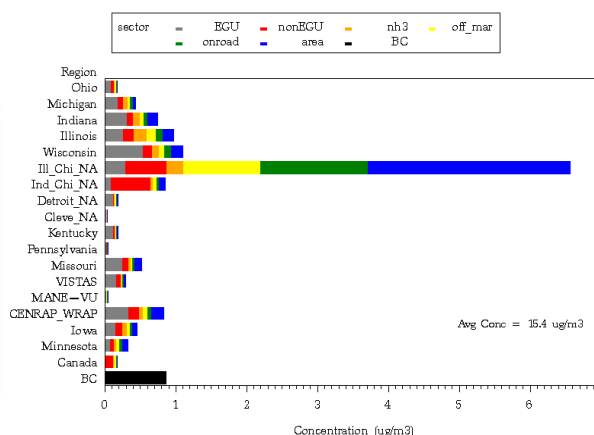
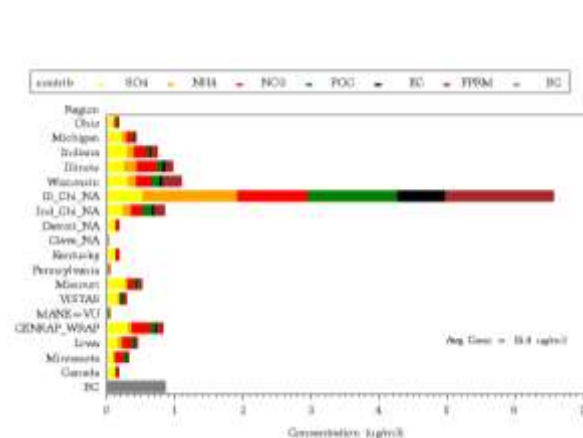
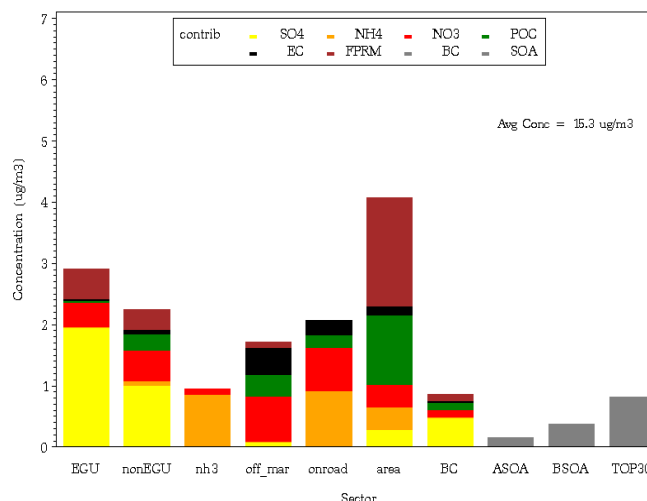
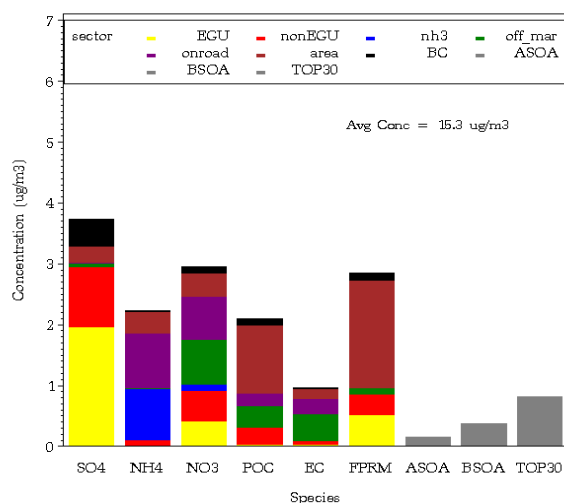
	2009	2012	2018
Sulfates	9% - 10%	10% - 12%	7% - 10%
Nitrates	5% - 6%	6% - 11%	11% - 17%
Organic Carbon	2% - 3%	2% - 4%	3% - 6%

Table 7.3
LADCO's Round 4 PSAT/SMAT Modeling Results in Percent Reduction
Porter County

	2009	2012	2018
Sulfates	9%	9% - 13%	6% - 9%
Nitrates	6%	6% - 11%	12% - 17%
Organic Carbon	3%	3%	3%

Particulate source apportionment (PSAT) shows the breakdown of the modeled fine particle impacts by the different constituents of fine particles, the emissions sectors from which fine particles or their precursors are emitted and by geographic regions. Figure 7.1 shows the PSAT modeled results for Chicago for 2012.

Figure 7.1
PM_{2.5} Source Apportionment Results for Chicago for 2012



The biggest contribution among the constituents of fine particles in the Chicago area is sulfates (SO₄). The biggest contribution among emission sectors was area sources. The fine particle contribution from Indiana's portion of the Chicago nonattainment area is less than 1.0 ug/m³. The Round 4 results provide a good indication of the effects of emissions reductions from national emission control measures.

7.3 Summary of Modeled Results

LADCO modeling for future year design values has consistently shown that existing national emission control measures will continue to keep Lake and Porter counties in attainment of the annual fine particles NAAQS. In addition, U.S. EPA modeling in support for the Clean Air Interstate Rule has shown that future year design values for the Northwest Indiana counties will continue to attain the annual fine particle standard with modeled values below 15.0 ug/m³. Future national and local emission control strategies will ensure that Lake and Porter counties' annual fine particle attainment area will be maintained with an increasing margin of safety over time.

8.0 CORRECTIVE ACTIONS

8.1 Commitment to Revise Plan

As noted in Section 4.6 above, Indiana hereby commits to review its Maintenance Plan eight (8) years after redesignation, as required by Section 175A of the CAAA.

8.2 Commitment for Contingency Measures

Indiana will monitor fine particle concentrations to determine whether trends indicate higher values or whether emissions appear to be increasing. If it is determined that fine particle levels and emissions are increasing and action is necessary to reverse that trend, Indiana will take action to reverse the noted trend, prior to a violation of the standard occurring.

Indiana hereby commits to adopt and expeditiously implement necessary corrective actions in the following circumstance:

Action Level Response

An Action Level Response shall be prompted whenever a violation of the standard three (3)-year average of $15.1 \mu\text{g}/\text{m}^3$ occurs. In the event that the Action Level is triggered and is not found to be due to an exceptional event, malfunction, or noncompliance with a permit condition or rule requirement, IDEM will determine additional control measures needed to assure future attainment of NAAQS for fine particles. In this case, measures that can be implemented in a short time will be selected in order to be in place within eighteen (18) months from the close of the monitoring season that prompted the Action Level.

Control Measure Selection and Implementation

Adoption of any additional control measures is subject to the necessary administrative and legal process. This process will include publication of notices, an opportunity for public hearing, and other measures required by Indiana law for rulemaking by state environmental boards.

If a new measure or control is already promulgated and scheduled to be implemented at the federal or state level, and that measure or control is determined to be sufficient to address the upward trend in air quality, additional local measures may be unnecessary. Furthermore, Indiana will submit to U.S. EPA an analysis to demonstrate the proposed measures are adequate to return the area to attainment.

8.3 Contingency Measures

Contingency measures to be considered will be selected from a comprehensive list of measures deemed appropriate and effective at the time the selection is made. Listed below are example measures that may be considered. The selection of measures will be based upon cost-effectiveness, emission reduction potential, economic and social considerations or other factors that IDEM deems appropriate. IDEM will solicit input from interested and affected persons in the maintenance area prior to selecting appropriate contingency measures. All of the listed contingency measures are potentially effective or proven methods of obtaining significant reductions of fine particle precursor emissions. Because it is not possible at this time to determine what control measure will be appropriate at an unspecified time in the future, the list

of contingency measures outlined below is not comprehensive. Indiana anticipates that if contingency measures should ever be necessary, it is unlikely that a significant number (i.e., all those listed below) will be required.

- 1) Alternative fuel and diesel retrofit programs for fleet vehicle operations.
- 2) Require NO_x or SO₂ emission offsets for new and modified major sources.
- 3) Require NO_x or SO₂ emission offsets for new and modified minor sources.
- 4) Increase the ratio of emission offsets required for new sources.
- 5) Require NO_x or SO₂ controls on new minor sources (less than 100 tons).
- 7) Wood stove change-out
- 8) Idle Restrictions
- 9) Broader geographic applicability of existing measures.
- 10) One or more transportation control measures sufficient to achieve at least a half a percent (0.5%) reduction in actual area-wide precursor emissions. Transportation measures will be selected from the following, based upon the factors listed above, after consultation with affected local governments:
 - a) Trip reduction programs, including, but not limited to, employer-based transportation management plans, area wide rideshare programs, work schedule changes, and telecommuting.
 - b) Transit improvements.
 - c) Traffic flow improvements.
 - d) Other new or innovative transportation measures not yet in widespread use that affects state and local governments deemed appropriate.

No contingency measure shall be implemented without providing the opportunity for full public participation during which the relative costs and benefits of individual measures, at the time they are under consideration, can be fully evaluated.

9.0 PUBLIC PARTICIPATION

In accordance with Section 100 (a) (2) of the CAAA, Indiana published notification for a public hearing and solicitation for public comments concerning the draft Redesignation Petition and Maintenance Plan in the Gary Post Tribune, Chesterton Tribune and The Indianapolis Star, Indianapolis, Indiana on or before January 28, 2008.

A public hearing to receive comments on the redesignation request was held on February 27, 2008, in the Multi-Purpose Room #C125, at Ivy Tech Community College – Gary Campus, Gary, Indiana and a number of comments were received. The public comment period closed on March 11, 2008. Appendix G includes a copy of the public notice, certifications of publication, the transcript from the public hearing, public hearing attendance record, copies of all written comments received and a summary of comments received that includes IDEM's responses, as applicable.

10.0 CONCLUSIONS

Lake and Porter counties have attained the annual NAAQS for fine particles and do not significantly contribute to violations outside its portion of the nonattainment area. This petition demonstrates that Lake and Porter counties have complied with the applicable provisions of the 1990 Amendments to the Clean Air Act regarding redesignation of nonattainment areas of fine particles. IDEM has prepared a State Implementation and Maintenance Plan that meets the requirement of Section 110 (a)(1) of the 1990 Clean Air Act.

Indiana has performed an analysis that shows the air quality improvements are due to permanent and enforceable measures and that additional significant regional NO_x and SO₂ reductions following implementation of Phase II NO_x SIP Call and CAIR will ensure continued compliance (maintenance) with the standard. Indiana has also demonstrated that Lake and Porter counties should not have been designated as nonattainment of the annual fine particles standard and redesignating the area to attainment will not adversely affect any downwind area's ability to attain the standard. Additionally, Indiana has ensured that all CAA requirements necessary to support redesignation have been met.

In addition to the corrective actions (should they be necessary) outlined in this submittal, the State of Indiana continues to participate in the regional air quality planning efforts sponsored by LADCO. The current goal of the planning process is to establish a regional control strategy that provides for attainment of the ozone and fine particles standards and regional haze requirements, throughout the states of Illinois, Indiana, Michigan, Ohio and Wisconsin. Along with the other LADCO states, the state of Indiana is considering the implementation of local and statewide emission control measures, where photochemical modeling and culpability analysis demonstrates a clear need and cost-effectiveness analyses justify the implementation of such measures.

Furthermore, because this area is subject to significant transport of pollutants, significant regional NO_x and SO₂ reductions will ensure continued compliance (maintenance) with the standards with an increasing margin of safety. Based on this presentation, Lake and Porter counties meet the requirements for redesignation under the CAA (Section 107 (d)(3)) and U.S. EPA guidance.

Consistent with the authority granted to the U.S. EPA, the State of Indiana hereby requests that Lake and Porter counties be redesignated to attainment simultaneously with U.S. EPA approval of the Indiana State Implementation and Maintenance Plan provisions contained herein.

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APPENDIX A

Aerometric Information Retrieval System (AIRS) Data

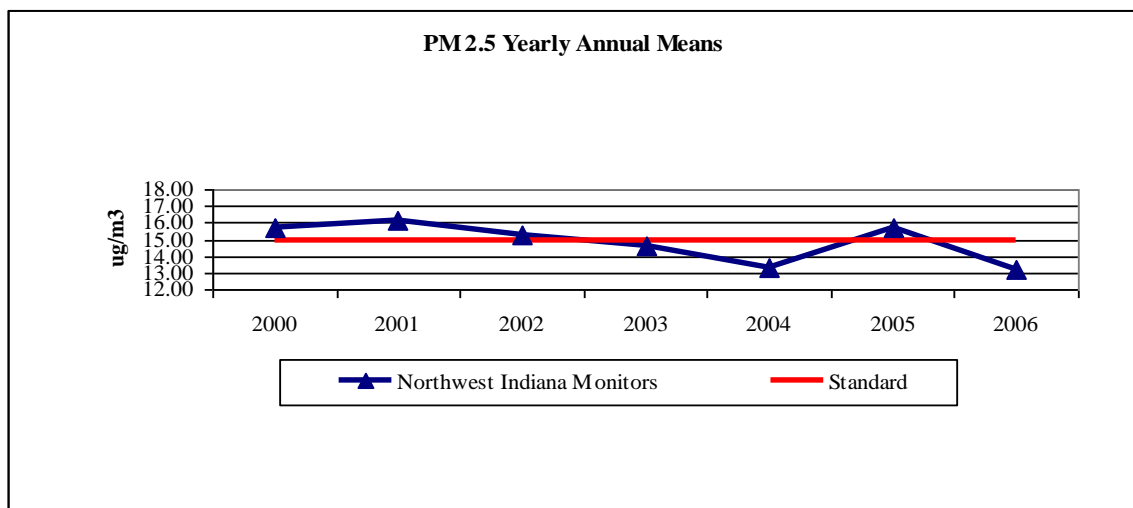
				Annual Average	2004-2006 Average
SITE ID	COUNTY	SITE NAME	YEAR	µg/m ³	µg/m ³
18-089-0006	Lake	Franklin School	2004	13.18	
18-089-0006	Lake	Franklin School	2005	15.76	
18-089-0006	Lake	Franklin School	2006	13.18	14.0
18-089-0027	Lake	Eldon Ready School	2004	12.82	
18-089-0027	Lake	Eldon Ready School	2005	15.46	
18-089-0027	Lake	Eldon Ready School	2006	12.29	13.5
18-089-1003	Lake	Ivanhoe School	2004	12.92	
18-089-1003	Lake	Ivanhoe School	2005	15.71	
18-089-1003	Lake	Ivanhoe School	2006	12.57	13.7
18-089-2004	Lake	Purdue	2004	13.26	
18-089-2004	Lake	Purdue	2005	15.40	
18-089-2004	Lake	Purdue	2006	12.67	13.8
18-089-2010	Lake	Robertsdale	2004	12.46	
18-089-2010	Lake	Robertsdale	2005	15.59	
18-089-2010	Lake	Robertsdale	2006	12.79	13.6
18-089-0031	Lake	Gary Water Treatment Plant	2005	Site began 07/01/05	
18-089-0031	Lake	Gary Water Treatment Plant	2006	13.30	n/a
18-127-0020	Porter	Dunes Natl. Lakeshore	2004	11.83	
18-127-0020	Porter	Dunes Natl. Lakeshore	2005	14.00	
18-127-0020	Porter	Dunes Natl. Lakeshore	2006	11.02	12.3
18-127-0024	Porter	Ogden Dunes Water Treatment Plant	2004	12.38	
18-127-0024	Porter	Ogden Dunes Water Treatment Plant	2005	14.59	
18-127-0024	Porter	Ogden Dunes Water Treatment Plant	2006	11.81	12.9

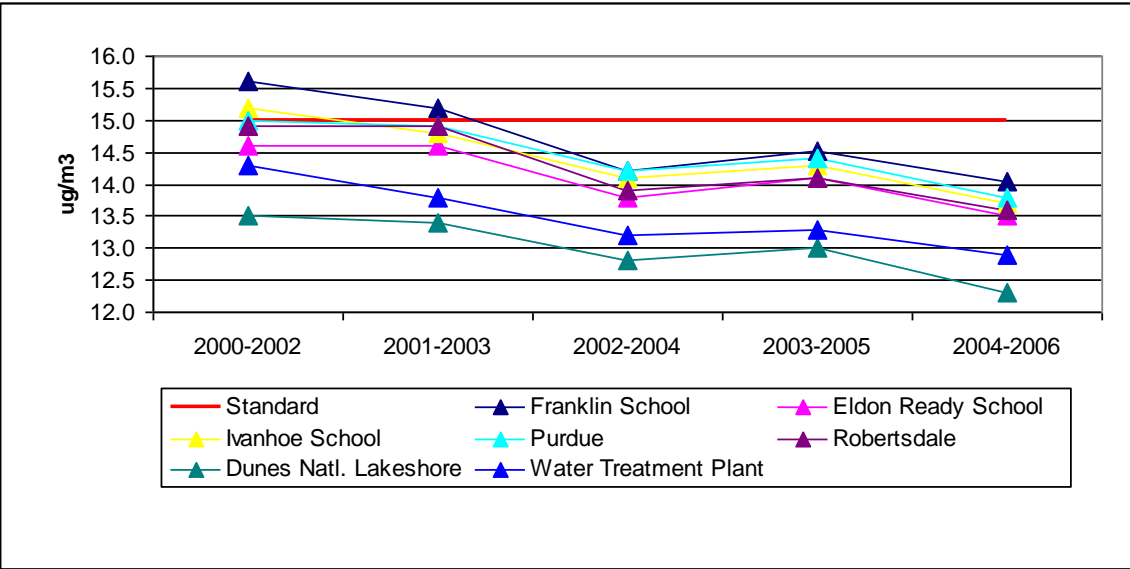
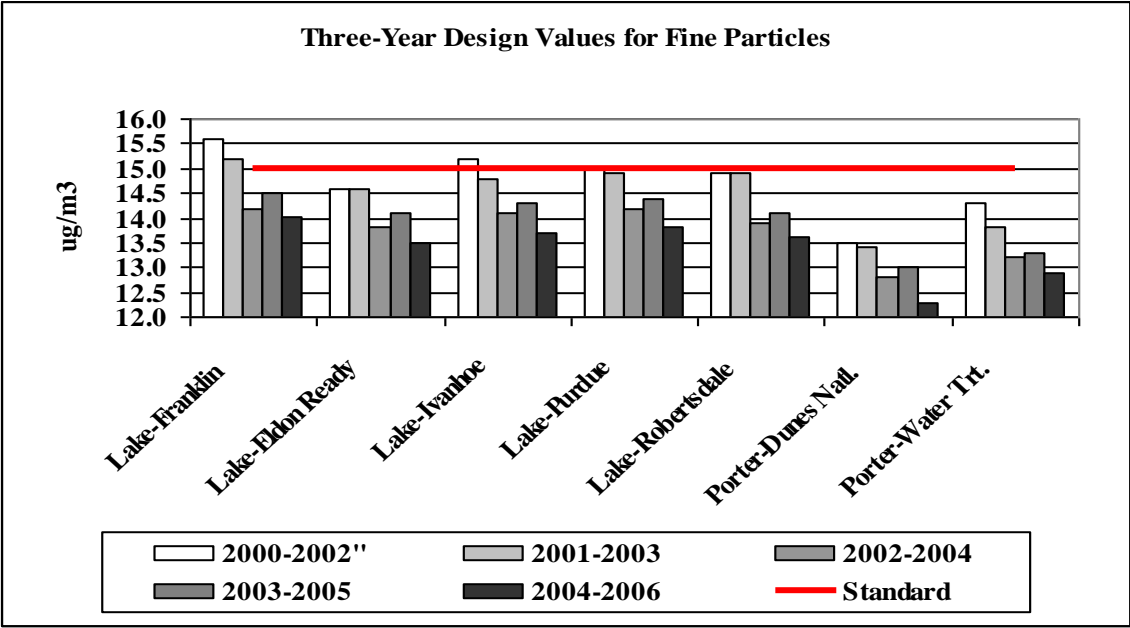
Nonattainment

Background, Transport and Source Oriented Monitors NOT Used for Attainment Purposes				Annual Average	2004-2006 Average
SITE ID	COUNTY	SITE NAME	YEAR	µg/m ³	µg/m ³
18-089-0022	Lake	IITRI	2004	16.10	
18-089-0022	Lake	IITRI	2005	18.25	
18-089-0022	Lake	IITRI	2006	13.57	16.0
18-089-0026	Lake	Burr Street	2004	16.53	
18-089-0026	Lake	Burr Street	2005	18.72	
18-089-0026	Lake	Burr Street	2006	14.71	16.7

Source-Oriented Site:
Value above 15.1, but
not comparable to the
annual standard for
fine particles.

Site #	City	Site Name	Three Year Design Values				
			00-02	01-03	02-04	03-05	04-06
18-089-0006	East Chicago	Franklin School	15.6	15.2	14.2	14.5	14.0
18-089-0027	Highland	Eldon Ready School	14.6	14.6	13.8	14.1	13.5
18-089-1003	Gary	Ivanhoe School	15.2	14.8	14.1	14.3	13.7
18-089-2004	Hammond	Purdue	15.0	14.9	14.2	14.4	13.8
18-089-2010	Hammond	Robertsdale	14.9	14.9	13.9	14.1	13.6
18-127-0020		Dunes Natl. Lakeshore	13.5	13.4	12.8	13.0	12.3
18-127-0020	Ogden Dunes	Water Treatment Plant	14.3	13.8	13.2	13.3	12.9
			value above the standard				
			Incomplete Data				





Site#	City	Site Name	Yearly Annual Means						
			2000	2001	2002	2003	2004	2005	2006
18-089-0006	East Chicago	Franklin School	15.76	16.11	14.92	14.60	13.18	15.76	13.18
18-089-0027	Highland	Eldon Ready School	14.04	15.18	14.60	14.10	12.82	15.46	12.29
18-089-1003	Gary	Ivanhoe	15.33	14.98	15.22	14.14	12.92	15.71	12.57
18-089-2004	Hammond	Purdue	14.96	15.38	14.70	14.55	13.26	15.40	12.67
18-089-2010	Hammond	Robertsdale	14.34	15.55	14.88	14.26	12.46	15.59	12.79
18-127-0020		Dunes Natl. Lakeshore	13.53	13.62	13.24	13.19	11.83	14.00	11.02
18-127-0024	Ogden Dunes	Water Treatment Plant	14.55	14.18	14.20	12.94	12.38	14.59	11.81
			value above the standard						
			controlling monitor						

APPENDIX A-1

2007 Monitoring Data Supplement

APPENDIX A1 – SUPPLEMENT

2007 Monitoring Data

Aerometric Information Retrieval System (AIRS) Data

SITE ID	COUNTY	SITE NAME	YEAR	Annual Average µg/m ³	2005-2007 Average µg/m ³
18-089-0006	Lake	Franklin School	2005	15.76	14.5
18-089-0006	Lake	Franklin School	2006	13.18	
18-089-0006	Lake	Franklin School	2007	14.44	
18-089-0027	Lake	Eldon Ready School	2005	15.46	13.6
18-089-0027	Lake	Eldon Ready School	2006	12.29	
18-089-0027	Lake	Eldon Ready School	2007	13.17	
18-089-1003	Lake	Ivanhoe School	2005	15.71	14.1
18-089-1003	Lake	Ivanhoe School	2006	12.57	
18-089-1003	Lake	Ivanhoe School	2007	14.01	
18-089-2004	Lake	Purdue	2005	15.40	14.0
18-089-2004	Lake	Purdue	2006	12.67	
18-089-2004	Lake	Purdue	2007	13.80	
18-089-2010	Lake	Robertsdale	2005	15.59	14.0
18-089-2010	Lake	Robertsdale	2006	12.79	
18-089-2010	Lake	Robertsdale	2007	13.68	
18-089-0031	Lake	Gary Water Treatment Plant	2005	16.98 ¹	14.8
18-089-0031	Lake	Gary Water Treatment Plant	2006	13.30	
18-089-0031	Lake	Gary Water Treatment Plant	2007	14.55	
18-127-0020	Porter	Dunes Natl. Lakeshore	2005	14.00	12.7
18-127-0020	Porter	Dunes Natl. Lakeshore	2006	11.02	
18-127-0020	Porter	Dunes Natl. Lakeshore	2007	13.04	
18-127-0024	Porter	Ogden Dunes Water Treatment Plant	2005	14.59	13.4
18-127-0024	Porter	Ogden Dunes Water Treatment Plant	2006	11.81	
18-127-0024	Porter	Ogden Dunes Water Treatment Plant	2007	13.79	

Nonattainment

Less than three years of
data

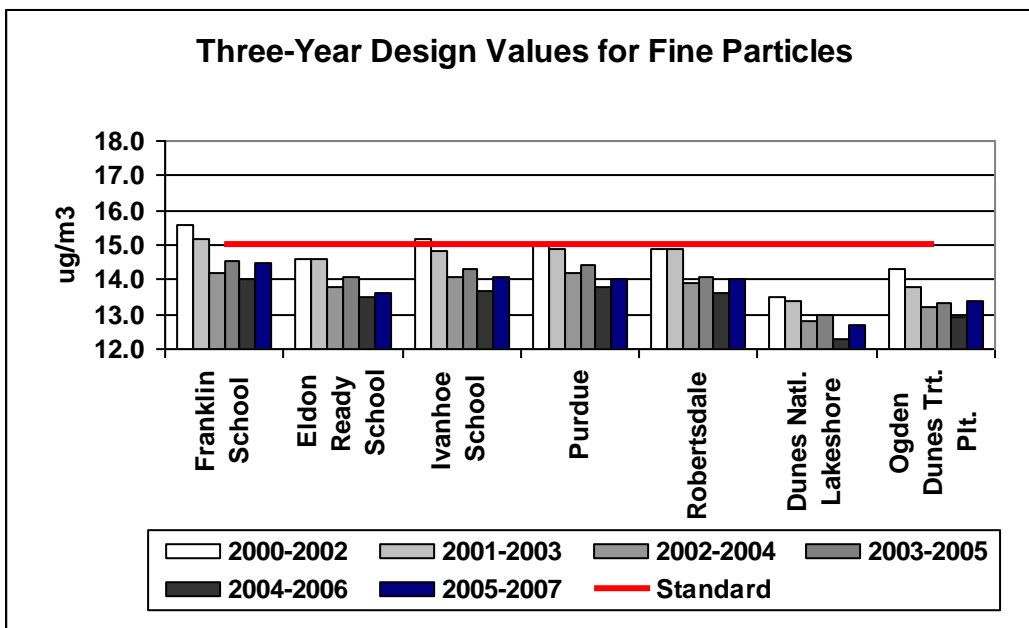
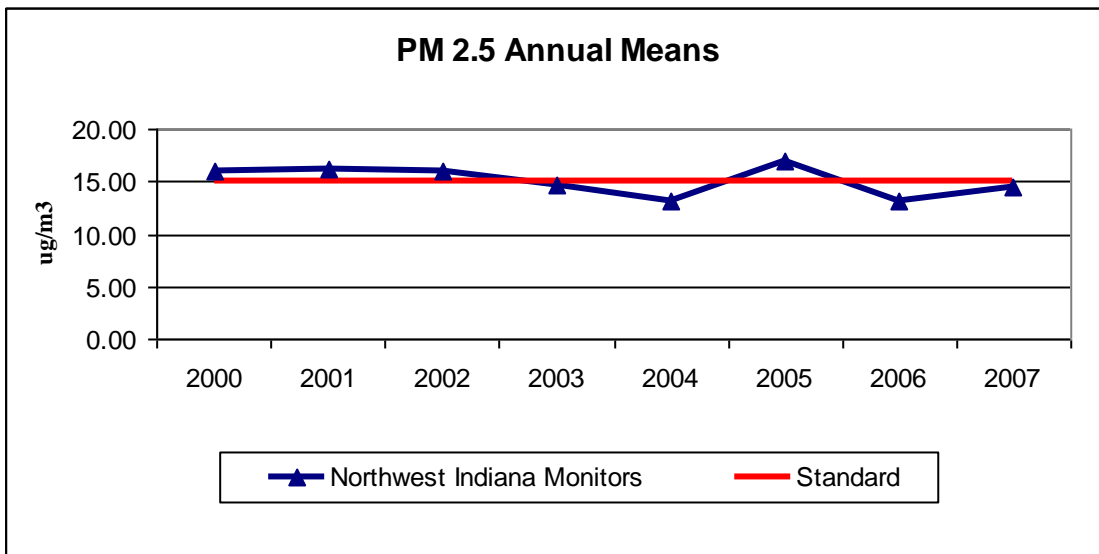
Incomplete Data

¹ Site began operation
07/01/05

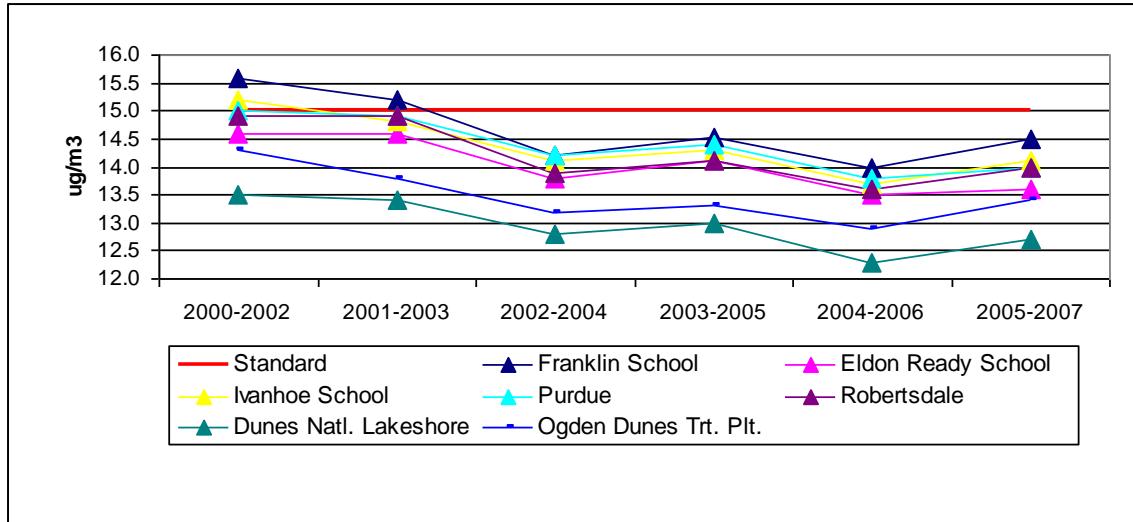
Background, Transport and Source Oriented Monitors NOT Used for Attainment Purposes				Annual Average	2005-2007 Average
SITE ID	COUNTY	SITE NAME	YEAR	µg/m ³	µg/m ³
18-089-0022	Lake	IITRI	2005	18.25	15.6
18-089-0022	Lake	IITRI	2006	13.57	
18-089-0022	Lake	IITRI	2007	15.06	
18-089-0026	Lake	Burr Street	2005	18.72	16.5
18-089-0026	Lake	Burr Street	2006	14.71	
18-089-0026	Lake	Burr Street	2007	16.07	

Source-Oriented Site: Value above the 15.1µg/m³, but not comparable to the annual standard for fine particles.

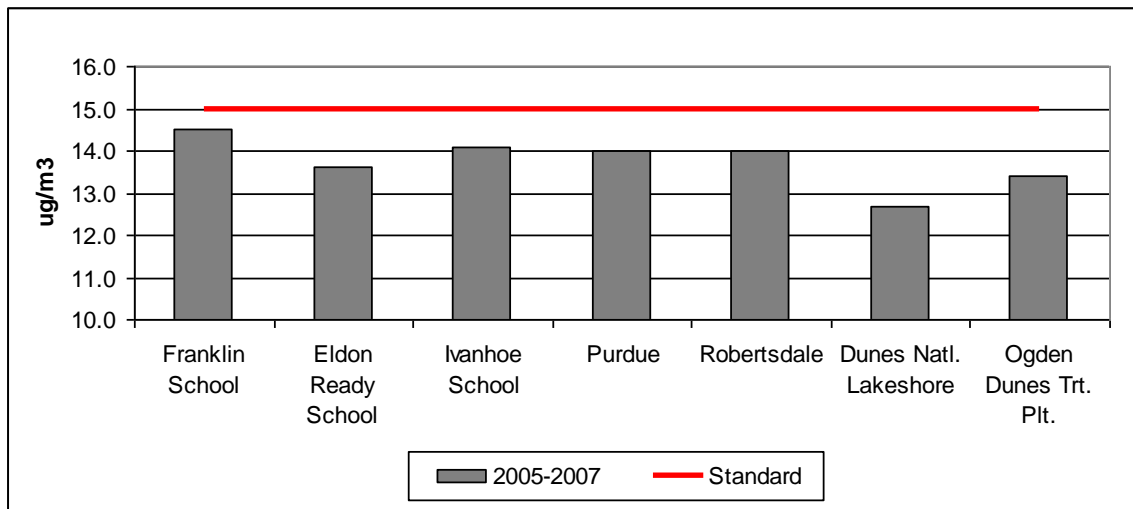
Site #	City	Site Name	Three-Year Design Values					
			00-02	01-03	02-04	03-05	04-06	05-07
18-089-0006	East Chicago	Franklin School	15.6	15.2	14.2	14.5	14.0	14.5
18-089-0027	Highland	Eldon Ready School	14.6	14.6	13.8	14.1	13.5	13.6
18-089-1003	Gary	Ivanhoe School	15.2	14.8	14.1	14.3	13.7	14.1
18-089-2004	Hammond	Purdue	15.0	14.9	14.2	14.4	13.8	14.0
18-089-2010	Hammond	Robertsdale	14.9	14.9	13.9	14.1	13.6	14.0
18-127-0020		Dunes Natl. Lakeshore	13.5	13.4	12.8	13.0	12.3	12.7
18-127-0024	Ogden Dunes	Ogden Dunes Trt. Plt.	14.3	13.8	13.2	13.3	12.9	13.4
18-089-1016	Gary	Federal Building	16.1	n/a				
18-089-0031	Gary	Water Treatment Plant	n/a	n/a		17.0	15.0	14.8
						Incomplete Data		
						Less than three years of data		



Three-Year Design Values for Fine Particles



2005-2007 Fine Particle Design Values



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Appendix A-2

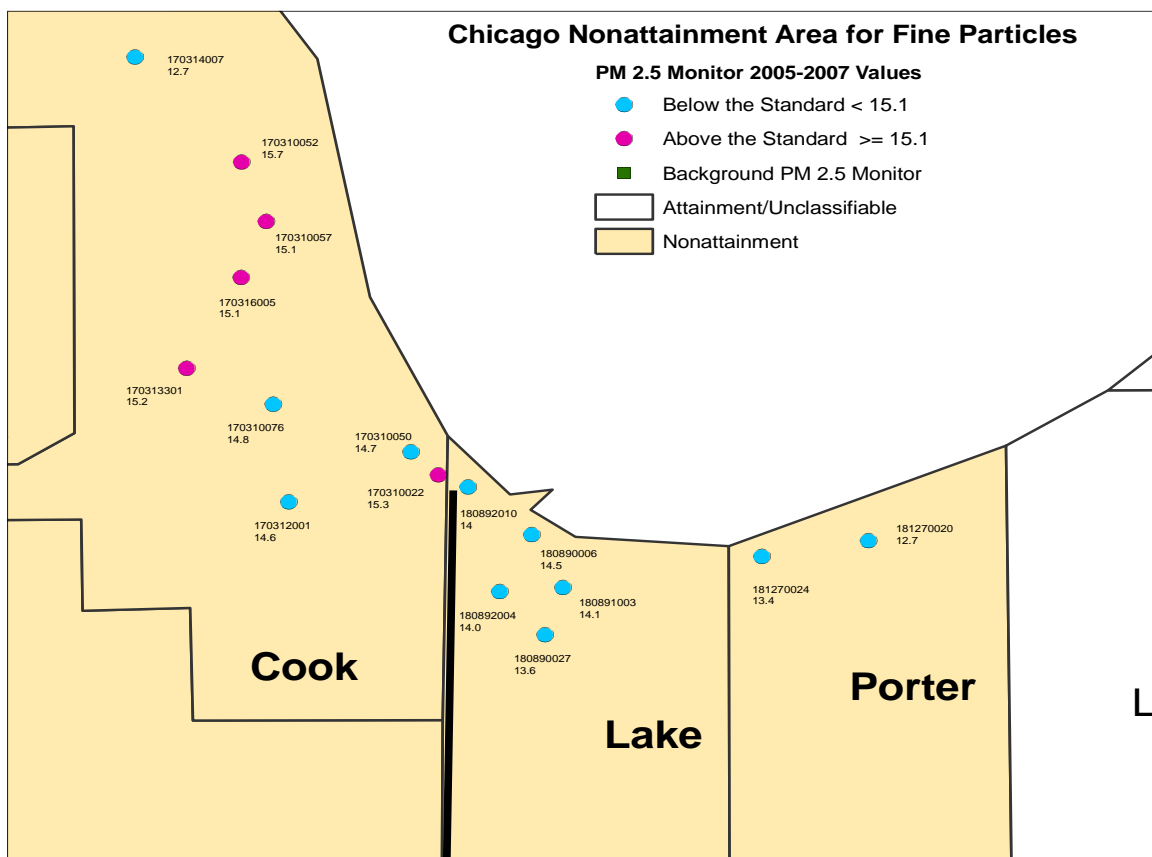
2005-2007 Monitoring Data Analysis

Analysis of NE Illinois and NW Indiana PM_{2.5} Data 2005 – 2007

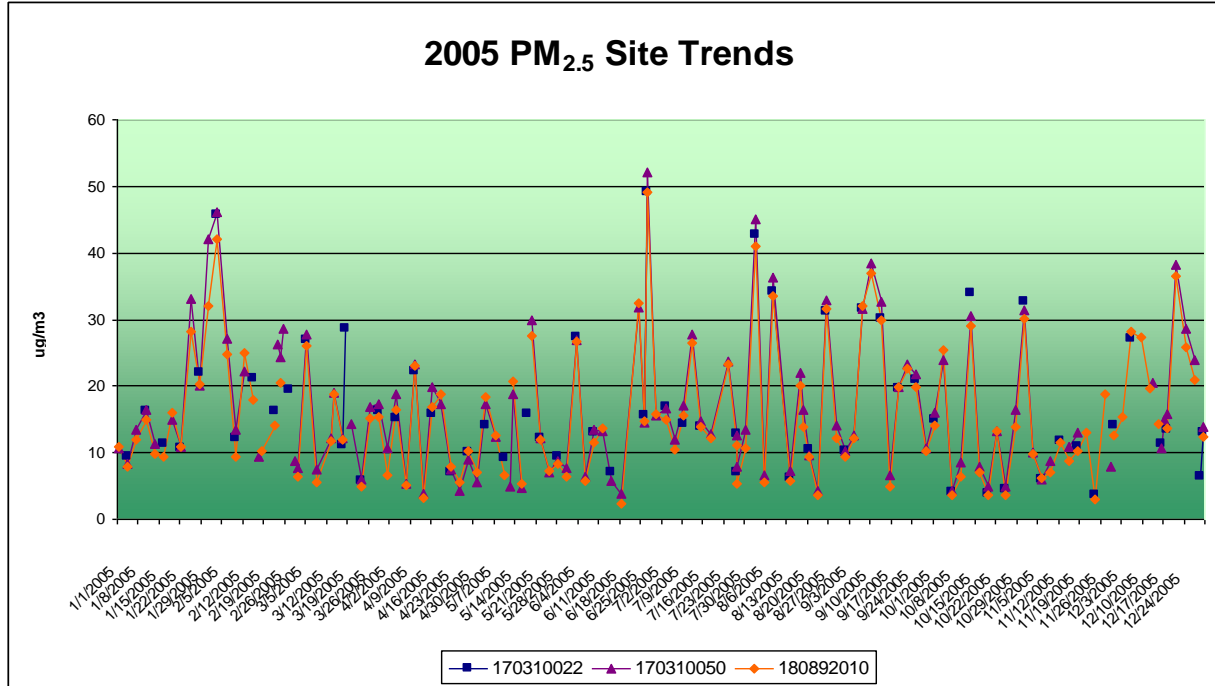
Background

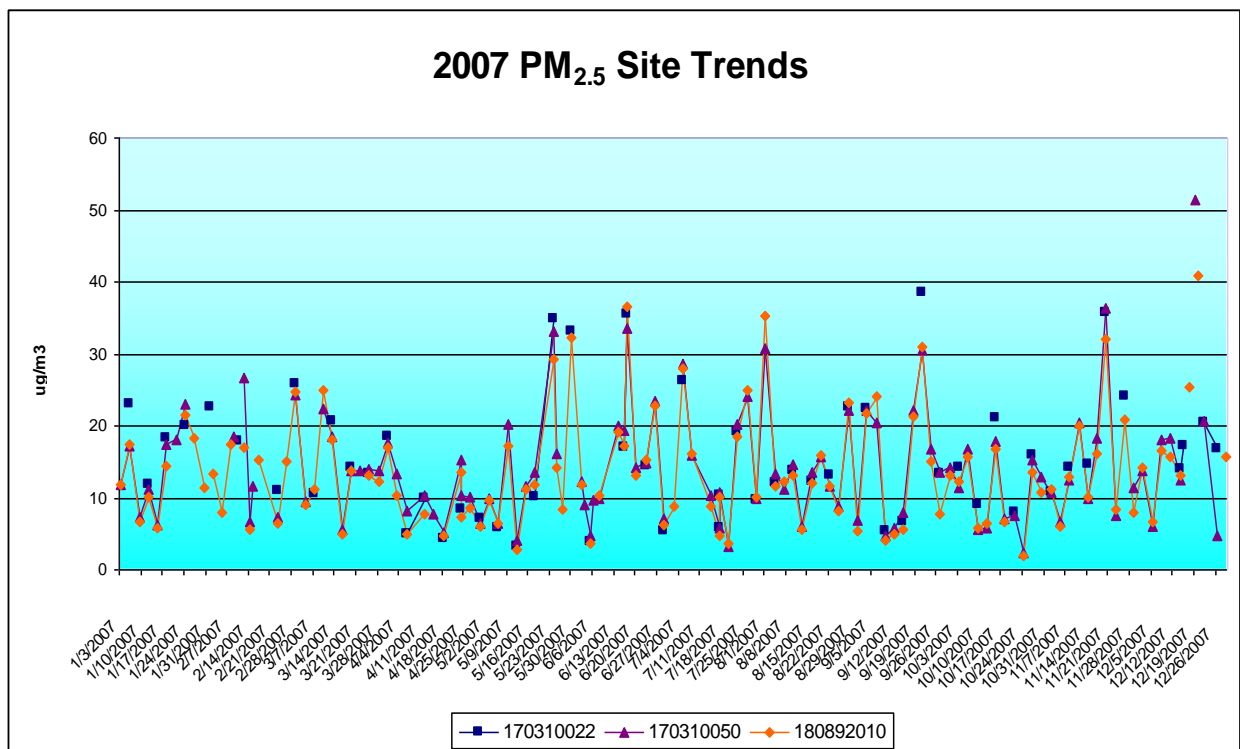
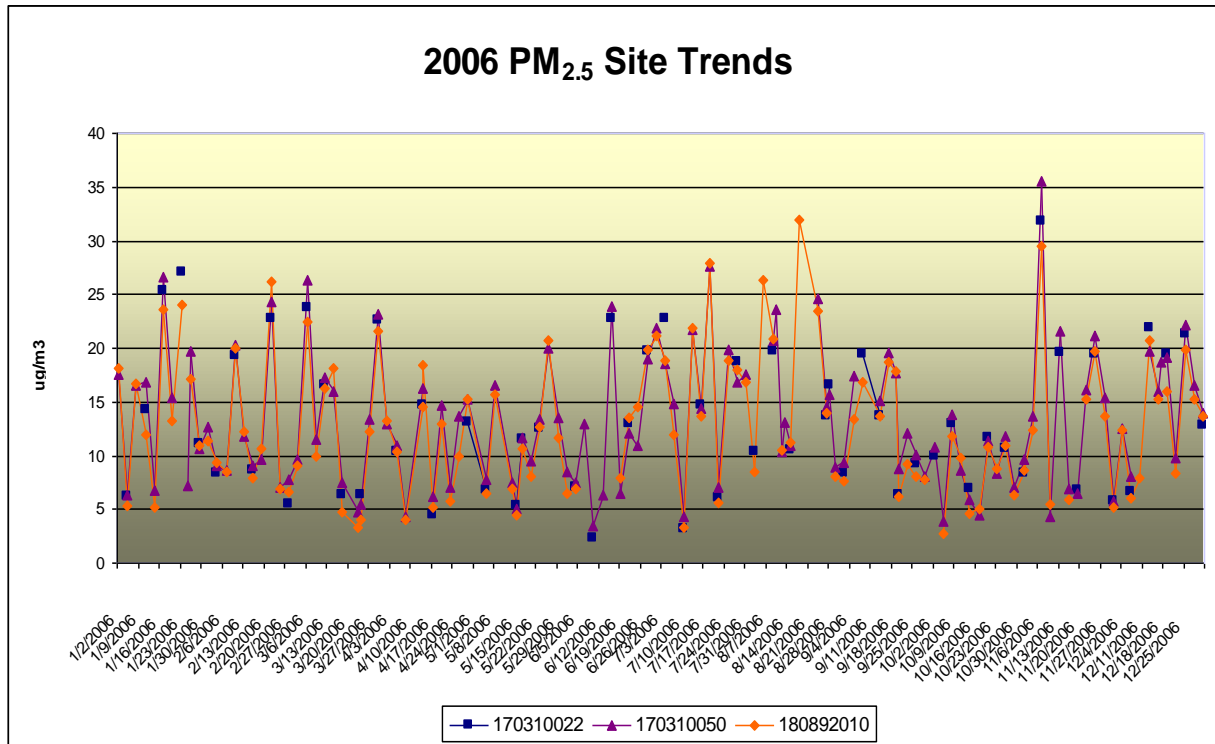
Counties in Northwest Indiana and Northeast Illinois are classified as nonattainment for PM_{2.5} and combined into one non-attainment area based upon the metropolitan statistical area. Indiana population-exposure sites with complete data in Lake and Porter counties have shown attainment of the PM_{2.5} annual NAAQS since 2003. Sites in Cook County, Illinois generally have shown attainment except at locations west and northwest of downtown Chicago. Analyses performed by IDEM show that background concentrations and local sources have much greater impact on these particular monitors than sources in NW Indiana.

Data for 2005-2007 indicate that a total of five monitoring sites in Cook County, IL exceed the annual fine particle NAAQS. This includes the site closest to Indiana, 170310022, 3535 E. 114th Street, Chicago. This site is classified as a population-exposure site. Its three year design value for 2005-2007 is 15.3 $\mu\text{g}/\text{m}^3$. The purpose of this analysis is to determine culpability of Indiana sources on the IL nonattainment sites to help determine the course of action to be taken with the current PM_{2.5} redesignation request for Northwest Indiana.



There are two monitoring sites in close proximity to 170310022, one at 103rd and Luella Streets in Chicago, Illinois (170310050) and one at Robertsdale in Hammond, Indiana (180892010). 170310050 is classified as source-oriented / population-exposure and has a 2005-2007 design value of $14.7 \mu\text{g}/\text{m}^3$. Site 180892010 has a design value for the same time period of $14.0 \mu\text{g}/\text{m}^3$. It is classified as a population-exposure site. The map below illustrates the close proximity of the locations of these monitoring sites. Monitoring data from these three sites are in the graphs below. Trends are very similar.





In order to make an assessment of areas of influence on these sites, the days with the highest peak values were examined. With a design value only slightly above the NAAQS, monitor values can be influenced heavily by a few peak values. Therefore, for days with values over 30 $\mu\text{g}/\text{m}^3$, several meteorological parameters were examined.

There were 48 days meeting these criteria. Table 1 show the days included in this analysis.

Table 1**High 24-hour Values**

	170310022	170310050	180892010
6/27/05	49.2	52.1	49.1
2/3/05	45.7	46.1	42
8/2/05	42.7	45	40.9
9/21/07	38.6	30.6	30.9
11/20/07	35.7	36.3	32
6/17/07	35.5	33.6	36.5
5/24/07	34.8	33.2	29.3
8/8/05	34.2	36.4	33.6
10/13/05	33.9	30.6	29
5/30/07	33.1		32.2
10/31/05	32.6	31.3	30.2
11/7/06	31.8	35.6	29.5
9/7/05	31.5	31.6	32
8/26/05	31.1	32.9	31.5
9/13/05	30.2	32.6	30

**High 24-hour Values
Sorted by Date**

	170310022	170310050	180892010
1/25/05		33.1	28.1
1/31/05		42.1	32.1
2/3/05	45.7	46.1	42
2/6/05		27.1	24.7
2/23/05		26.2	
2/25/05		28.6	
3/5/05	26.8	27.7	26
3/18/05	28.7		
5/19/05		29.8	27.6
6/3/05	27.3	26.9	26.7
6/24/05		31.9	32.4
6/27/05	49.2	52.1	49.1
7/12/05		27.7	26.5
8/2/05	42.7	45	40.9
8/8/05	34.2	36.4	33.6
8/26/05	31.1	32.9	31.5
9/7/05	31.5	31.6	32
9/10/05		38.5	37
9/13/05	30.2	32.6	30
10/4/05		24	25.4
10/13/05	33.9	30.6	29
10/31/05	32.6	31.3	30.2
12/6/05	27.1		28.2
12/9/05			27.4
12/21/05		38.2	36.6
12/24/05		28.6	25.9
1/17/06	25.3	26.6	23.6
1/23/06	27		24.1
2/22/06	22.8	24.3	26.2
3/6/06	23.7	26.3	22.4
7/19/06		27.6	27.9
8/6/06			26.3
8/18/06			32
11/7/06	31.8	35.6	29.5
2/12/07		26.6	
3/1/07	25.8	24.2	24.7
3/10/07		22.3	25
5/24/07	34.8	33.2	29.3
5/30/07	33.1		32.2
6/17/07	35.5	33.6	36.5
7/5/07	26.3	28.5	27.9
7/26/07		24	25
8/1/07		30.8	35.2
9/21/07	38.6	30.6	30.9
11/20/07	35.7	36.3	32
12/17/07			25.4
12/19/07		51.3	
12/20/07			40.9

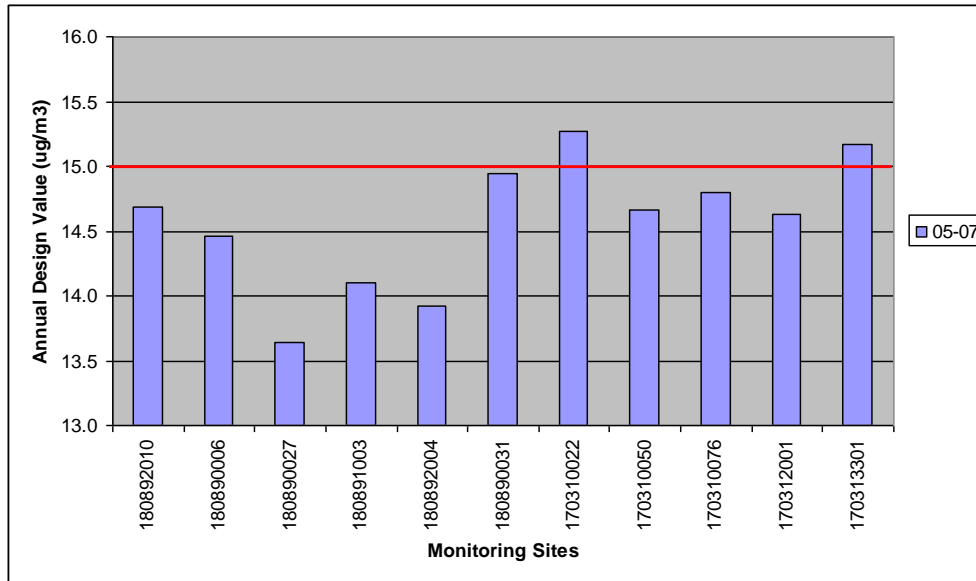
A look at the annual fine particle values for Indiana and Illinois monitors near the Indiana/Illinois state line show Site 170310022 had a higher annual value in 2007 than Sites 180892010 or 170310050, as shown below in Table 2. These two monitors are located within two miles of Site 170310022 and should reflect similar values. However, in 2007, Site 170310022 showed a value $1.6 \mu\text{g}/\text{m}^3$ higher than Site 170310050. Emissions from Lake and Porter would impact Sites 180892010, 170310022 and 170310050 equally due to their close proximity to each other. This fact would indicate that Site 170310022 may be impacted by nearby local sources that do not impact Site 170310050 to the northwest or Site 180892010 located to the east-southeast of the 170310022 monitor. Overhead photographs of the area surrounding the monitors show that there is a large industrialized area extending northwest to southwest of 170310022. Fugitive emissions from this area could reasonably account for the monitoring differential between the sites

Chart 1 shows the annual fine particle design values for monitors in the area, with Site 170310022 the highest among all surrounding monitors.

Table 2
Annual PM2.5 Design Values

Site ID	Site Address	2005	2006	2007
180892010	Hammond - Robertsdale	15.6	14.8	13.7
180890006	East Chicago	15.8	13.2	14.4
180890027	Highland	15.5	12.3	13.2
180891003	Gary - Ivanhoe	15.7	12.6	14.0
180892004	Hammond - Purdue	15.4	12.7	13.7
180890031	Water Plant	17.0	13.3	14.6
170310022	3535 E. 114th St.	16.9	13.2	15.7
170310050	103rd And Luella	16.6	13.3	14.1
170310076	7801 Lawndale	16.6	13.5	14.3
170312001	12700 Sacramento	16.4	13.2	14.3
170313301	60th St. & 74th Ave.	16.9	13.8	14.8

Chart 1
2005 - 2007 Annual PM2.5 Design Values



Data Analysis

The following section provides day by day values from available sites for each day that one of the three sites had fine particle values above $30 \mu\text{g}/\text{m}^3$. Included with the monitored values are a wind rose, back trajectory analysis, and AirNow slide. The data is arranged by year, in the order of the highest days.

Also available for some of the days is speciated $\text{PM}_{2.5}$ data. This includes total $\text{PM}_{2.5}$, sulfates, carbon, and nitrates. Sites operating in Northwest Indiana were at Hammond Purdue and Gary ITRI. These monitors operate on a one-in-six day schedule, so data are not always available to compare to samples that run on a one-in-three day schedule.

Many of the days with high values are part of multi-day episodes which saw high values across the Midwest. Examples are the late January - early February 2005 and late June 2005 episodes. The AirNow slides are particularly useful in showing the scope of elevated values. Studies conducted by LADCO show that as a general rule, regional episodes are sulfate driven in warm months and nitrate driven in cold months. The role of carbon, which possibly indicates local sources in some cases, is less understood.

- For 2005, when data was available for all three sites, values seldom differed by more than $2 - 3 \mu\text{g}/\text{m}^3$. Monitoring sites tracked closely together, indicating widespread elevated values throughout the area. Surface winds generally had a southerly component on the days with values above $30 \mu\text{g}/\text{m}^3$; with southwesterly, westerly or easterly components on other days.

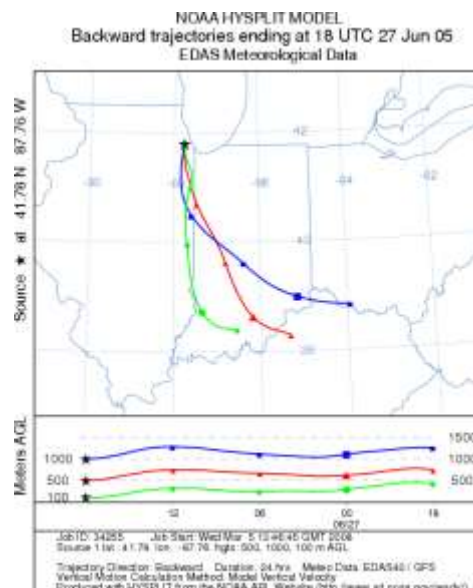
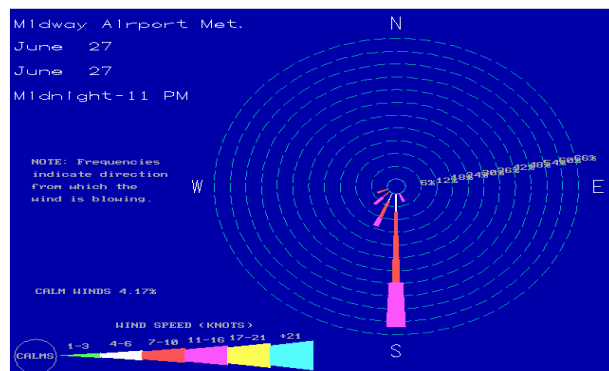
- For 2006, when data was available for all three sites, values seldom differed by more than $2 - 3 \mu\text{g}/\text{m}^3$. Monitoring sites tracked closely together, indicating widespread elevated values throughout the area. Surface winds generally had a south southwesterly component on the days with values above $30 \mu\text{g}/\text{m}^3$; with a westerly component on other days.

- For 2007, when data was available for all three sites, values seldom differed by more than $3 - 4 \mu\text{g}/\text{m}^3$. Monitoring sites tracked closely together, indicating widespread elevated values throughout the area. Surface winds generally had an easterly component on the days above $30 \mu\text{g}/\text{m}^3$; with a southerly or westerly component on other days.

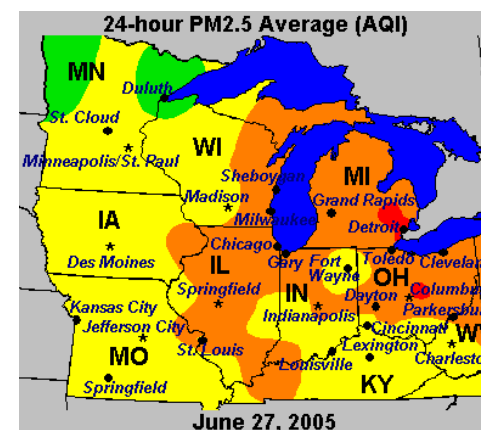
Surface wind conditions, as measured at the Midway Airport on the higher fine particle days at Site 170310022 were observed from all directions with winds mainly coming from the south and southwest.

	170310022	170310050	180892010
6/27/05	49.2	52.1	49.1

- Surface winds from the South and South Southwest
- Back trajectories from the South and Southeast

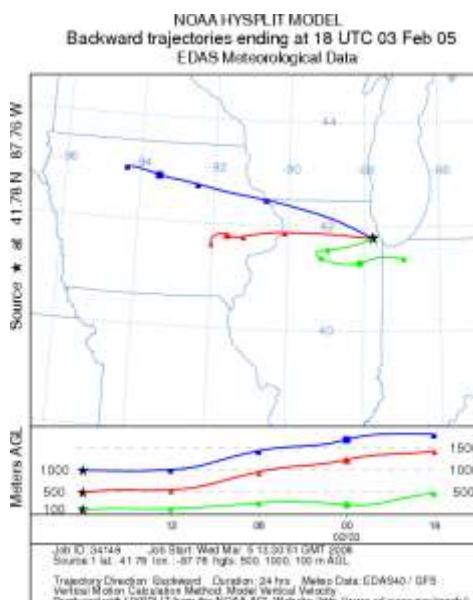
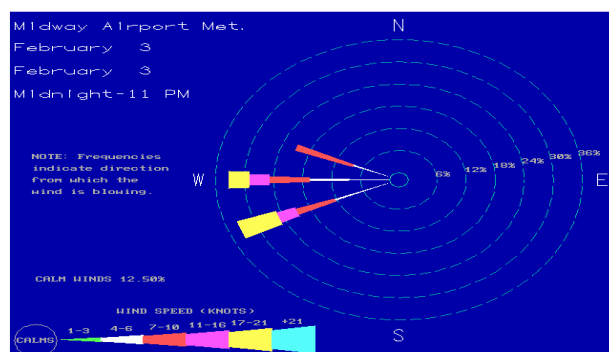


Highest values in three year period - wide-spread regional episode. Nearby speciated site indicated very high sulfates.

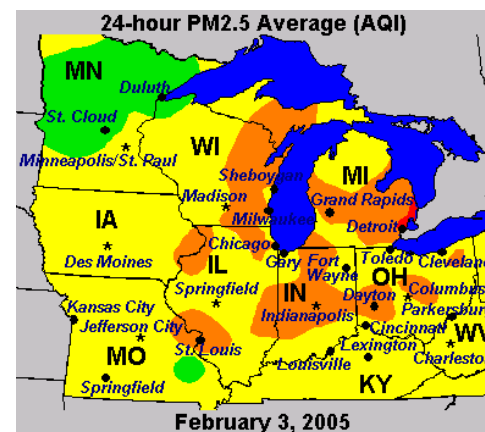


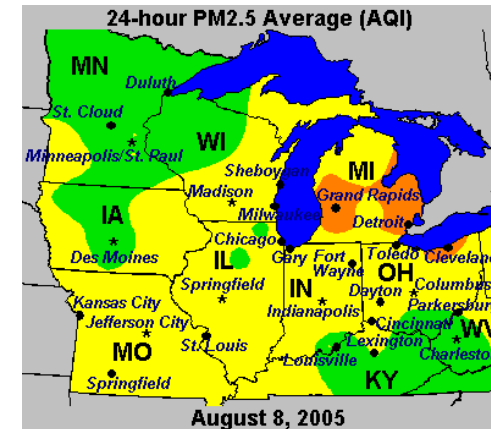
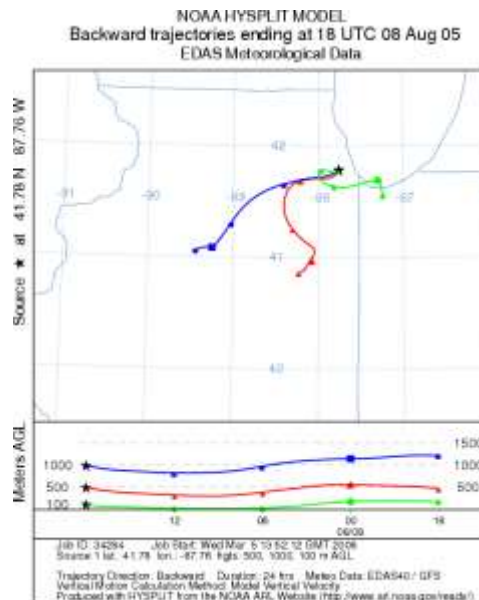
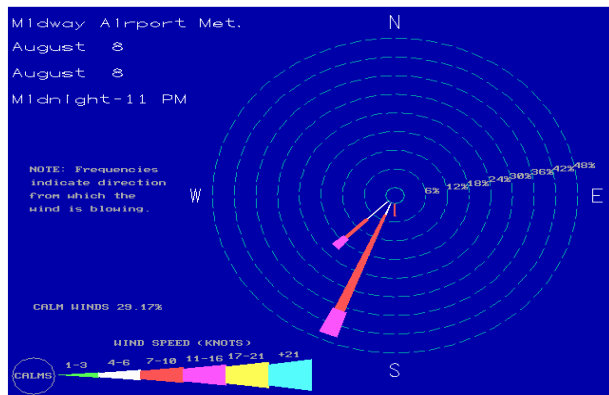
	170310022	170310050	180892010
2/3/05	45.7	46.1	42

- Surface winds from the West
- Back trajectories from the West with some recirculation of lower level winds from the east



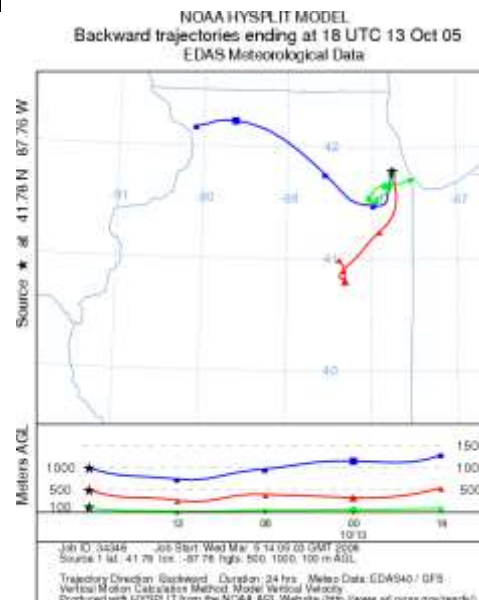
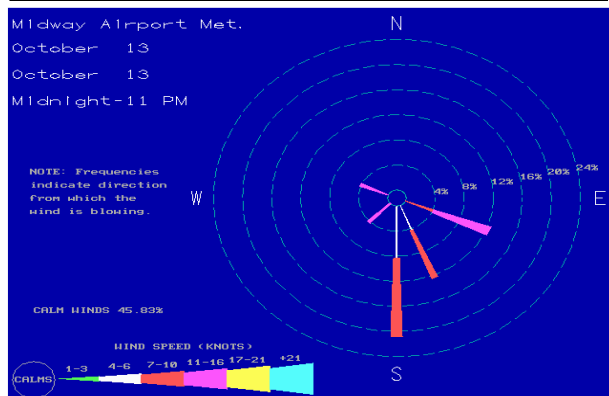
Wide-spread regional episode. High nitrates and carbon from speciated sites.



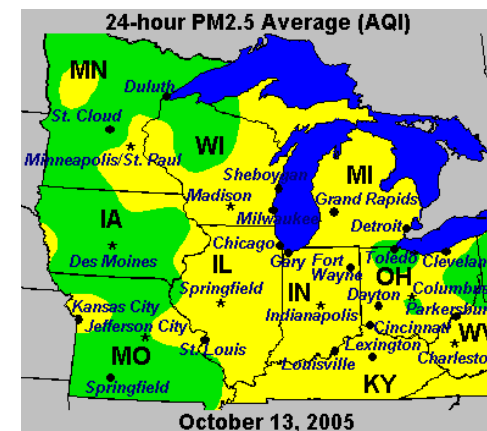


	170310022	170310050	180892010
10/13/05	33.9	30.6	29

- Surface winds from South and Southeast
- Back trajectories from West at upper level, recirculating from South and East at lower levels

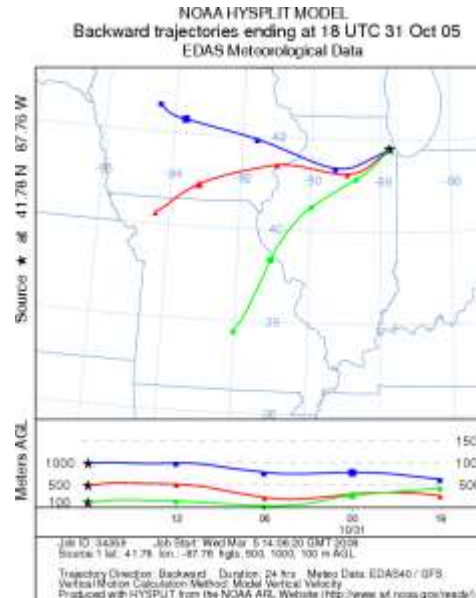
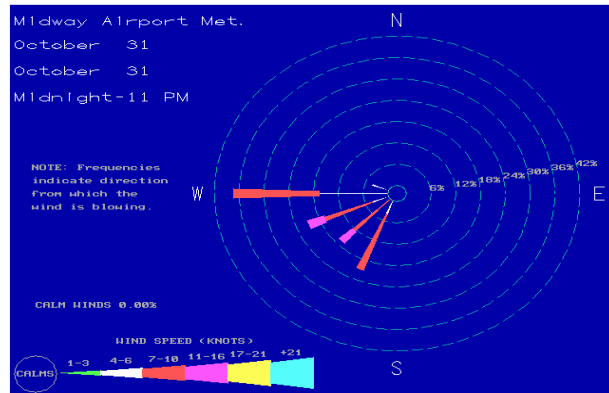


Uniformly elevated levels across the Midwest. Sulfates and carbon elevated at speciated sites.

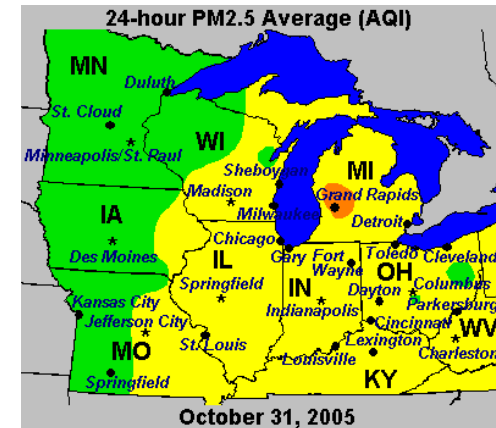


	170310022	170310050	180892010
10/31/05	32.6	31.3	30.2

- West and Southwest winds from surface and back trajectory charts

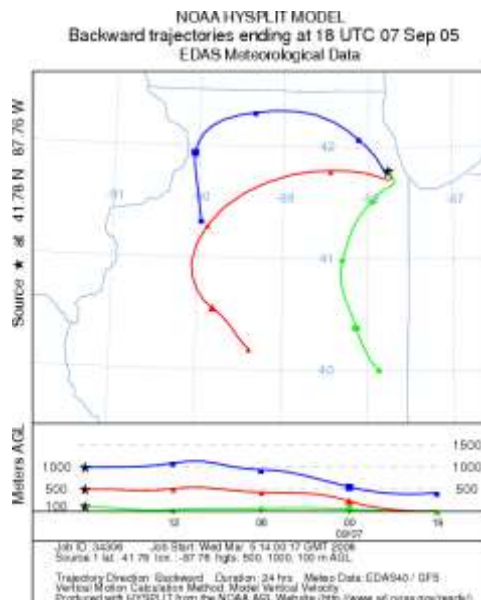
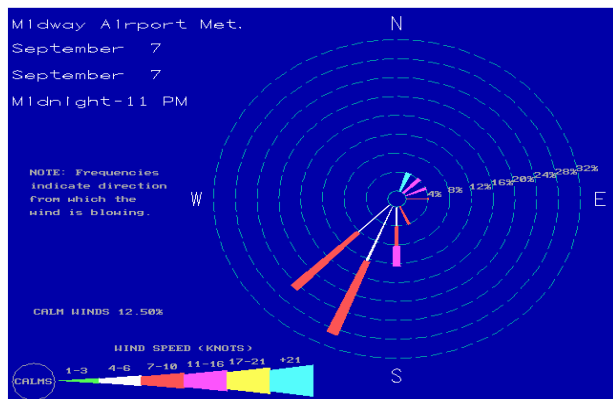


Widespread elevated values across Midwest. Speciated sites measured nearly equal amounts of sulfate, carbon, and nitrate.

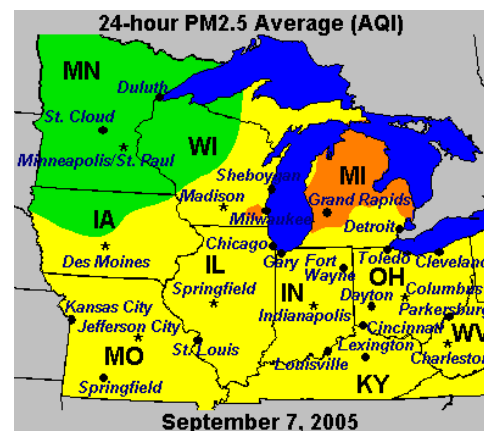


	170310022	170310050	180892010
9/7/05	31.5	31.6	32

- Surface winds from South and Southwest
- Back trajectories from West and Northwest at upper levels, South and Southwest lower level



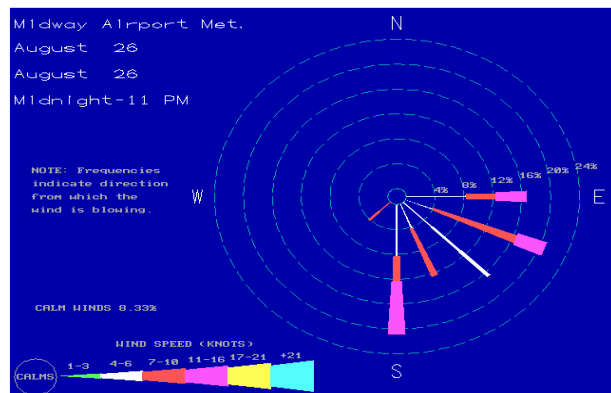
Elevated levels across Midwest, higher in upper Midwest. High sulfate levels at speciated sites.



	170310022	170310050	180892010
8/26/05	31.1	32.9	31.5

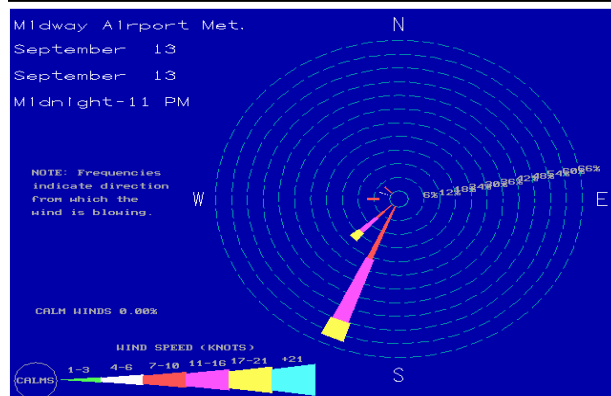
- Surface winds from East to South
- Back trajectories vary from South at upper levels to East and Southeast at lower levels

Widespread elevated levels in Midwest. Speciated sites measured high sulfates.



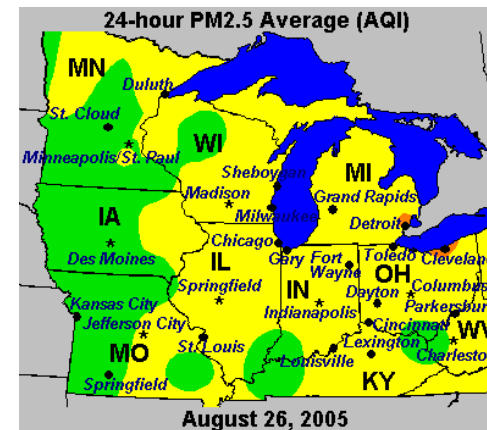
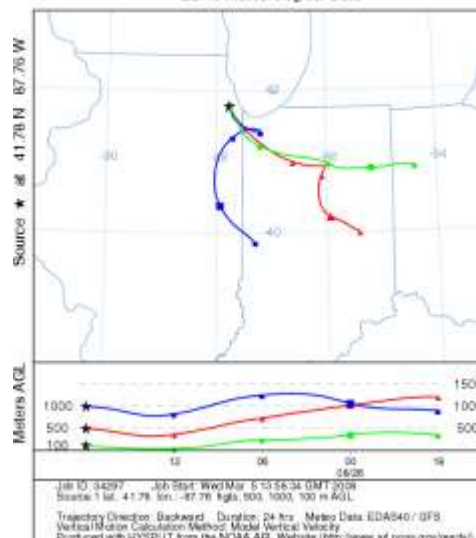
	170310022	170310050	180892010
9/13/05	30.2	32.6	30

Surface winds and back trajectories both from Southwest

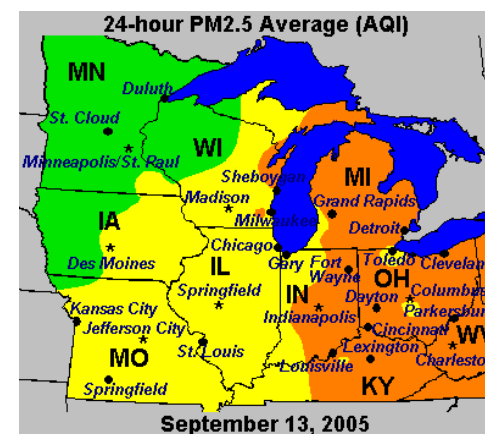
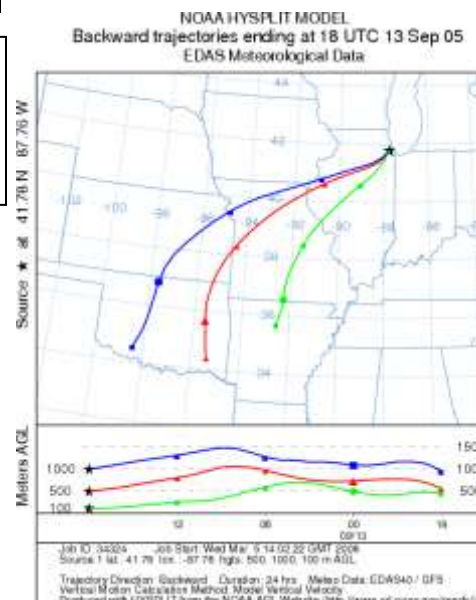


	170310022	170310050	180892010
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NOAA HYSPLIT MODEL
Backward trajectories ending at 18 UTC 26 Aug 05
EDAS Meteorological Data

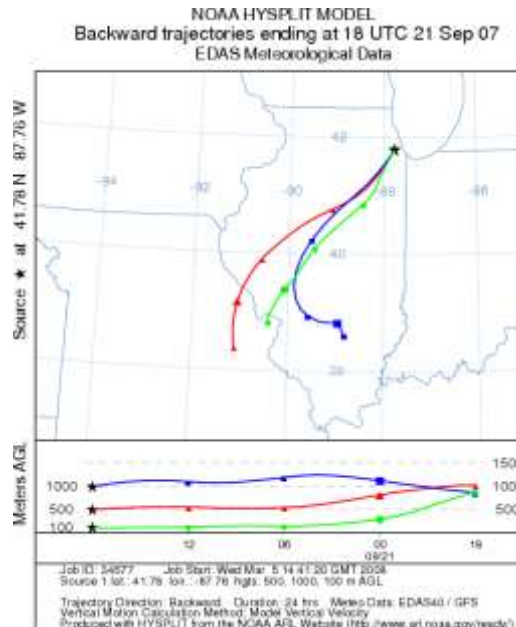
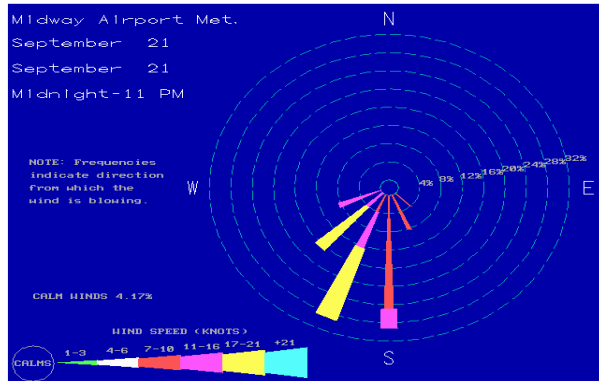


Widespread levels across Midwest, especially elevated from IL-IN border east. High sulfates and carbon at speciated sites.

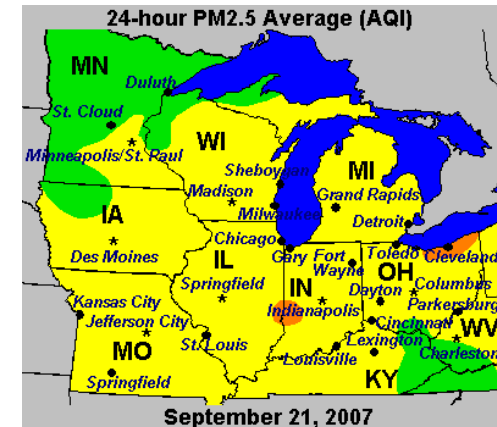


9/21/07	38.6	30.6	30.9
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- Surface winds were from the South and South Southwest
- Back trajectories show winds from the Southwest

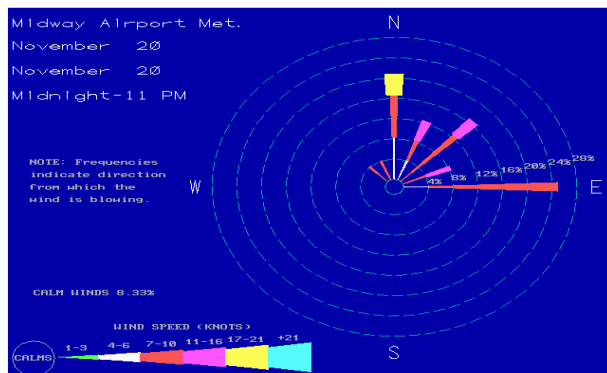


- Uniformly elevated levels across the Midwest, speciated sites show high sulfates and organic carbon.

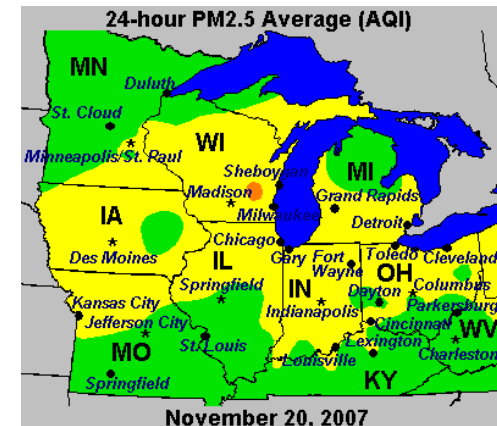


	170310022	170310050	180892010
11/20/07	35.7	36.3	32

- Surface winds were from the East, North and Northeast
- Back trajectories show upper air wind more from the Southwest with lower level winds from the Northeast

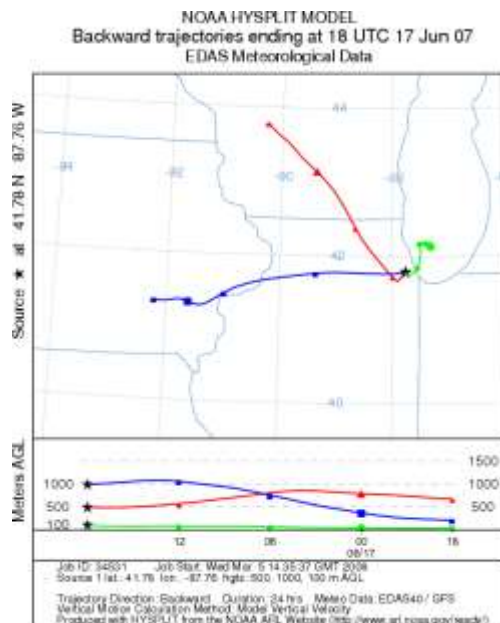
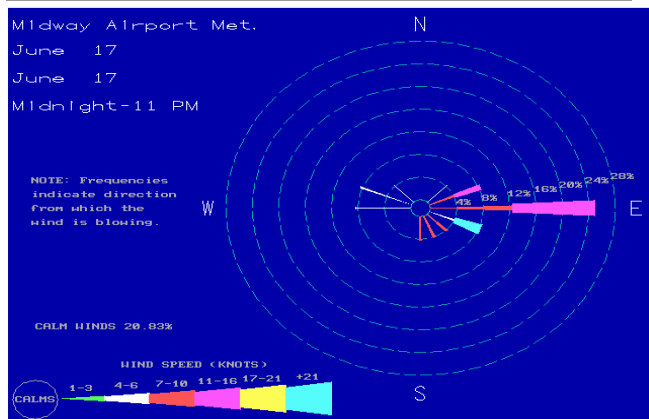


- Uniformly elevated levels across the upper Midwest. No speciated data was available for this day.

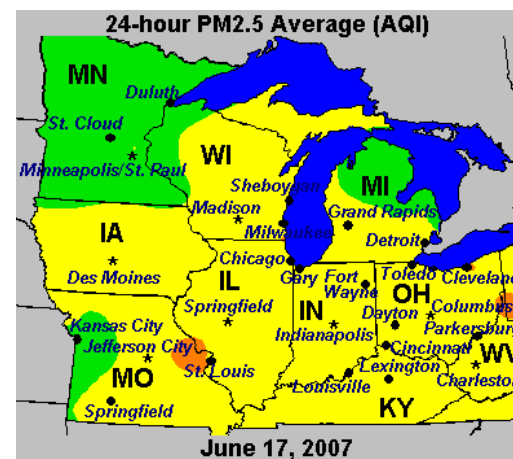


	170310022	170310050	180892010
6/17/07	49.2	52.1	49.1

- Surface winds were from the East
- Back trajectories show upper air wind more from the West and Northwest with lower level winds from the East

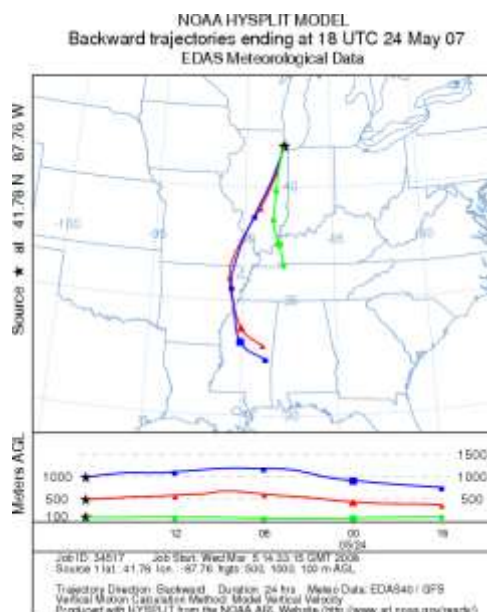
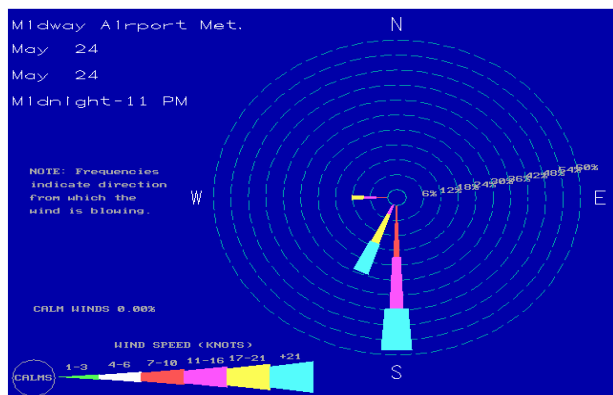


- Uniformly elevated levels across the Midwest, speciated sites show high sulfates and organic carbon.

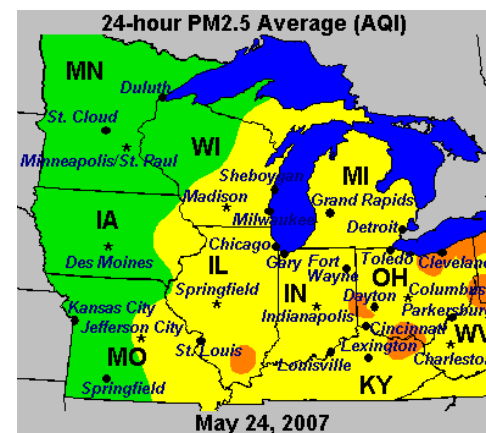


	170310022	170310050	180892010
5/24/07	34.8	33.2	29.3

- Surface winds were from the South
- Back trajectories show winds from the South

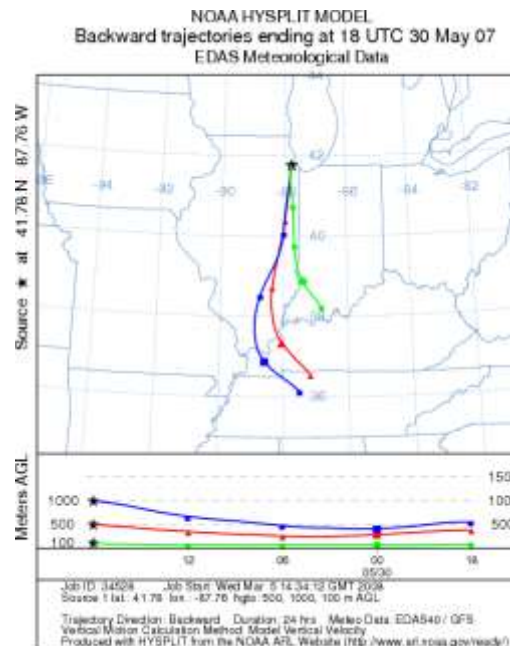
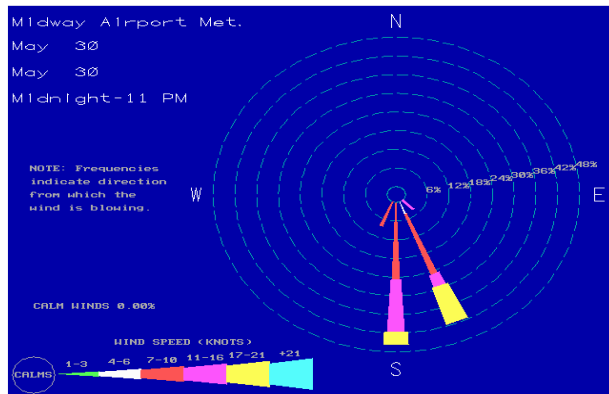


- Uniformly elevated levels across the eastern and southern Midwest, speciated sites show high organic carbon and sulfates.

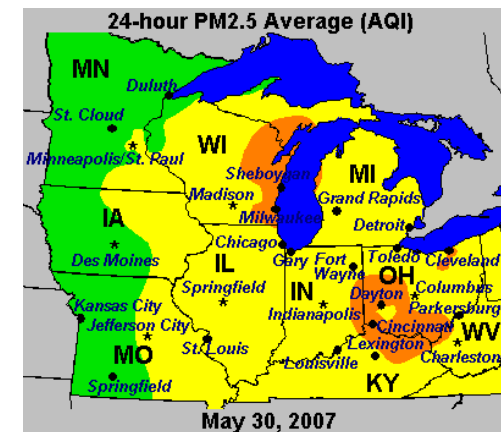


	170310022	170310050	180892010
5/30/07	33.1		32.2

- Surface winds were from the South and South Southeast
- Back trajectories show winds from the South



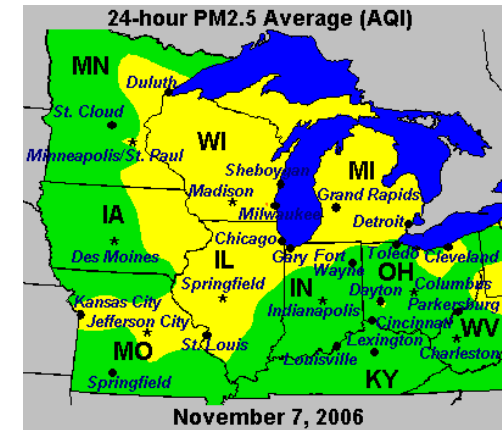
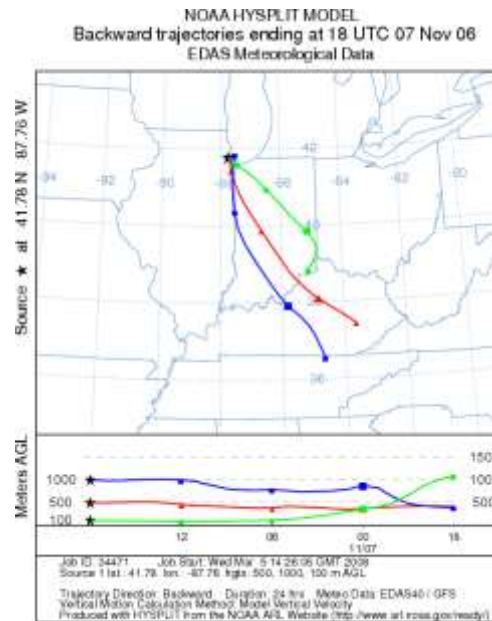
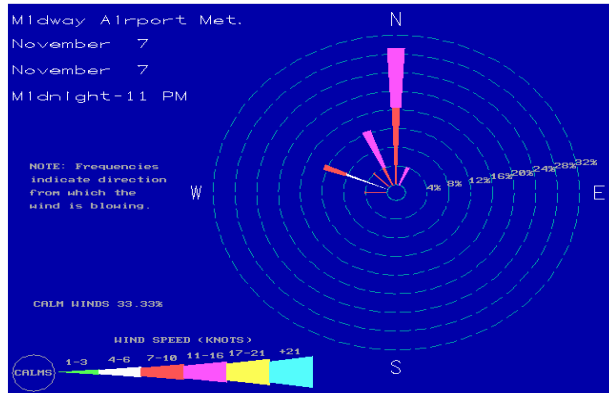
- Uniformly elevated levels across the upper Midwest with higher values in northern Lake Michigan, speciated sites show high sulfates and organic carbon.



	170310022	170310050	180892010
11/7/06	31.8	35.6	29.5

- Uniformly elevated levels across the northern and western Midwest, speciated sites show high nitrates, sulfates and organic carbon.

- Surface winds were from the North
- Back trajectories show upper air winds from the South and lower level winds from the Southeast

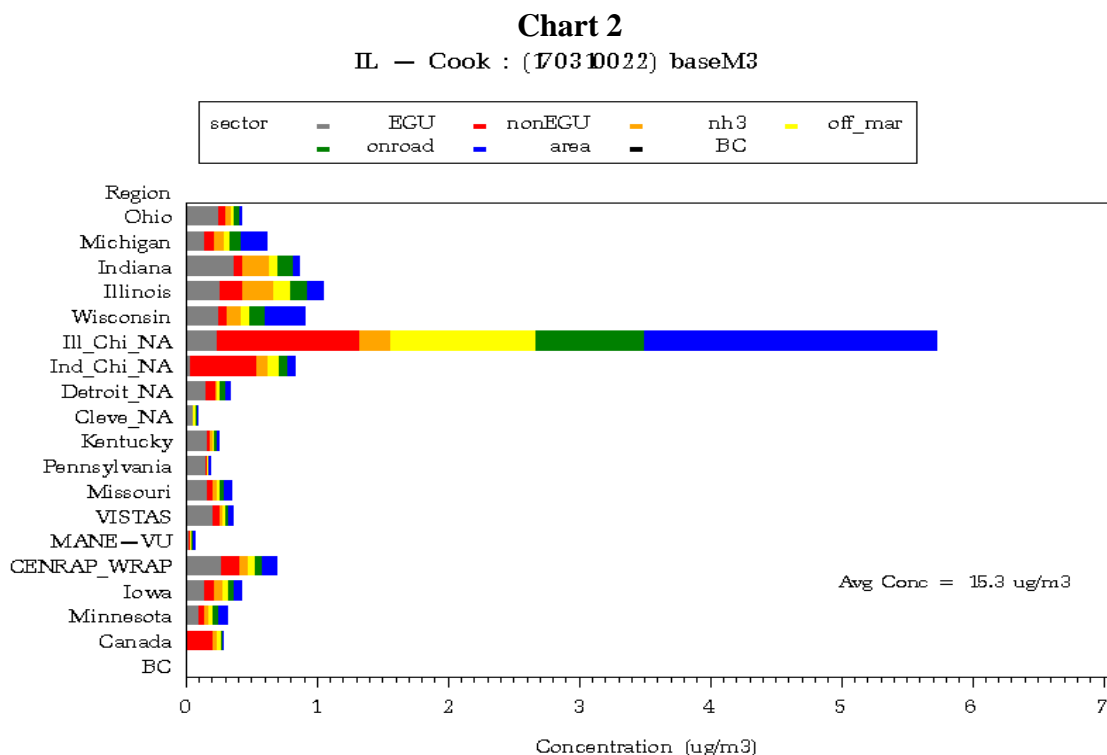


Culpability Analysis

A summary of the data from 2005 through 2007 indicate that on the days with elevated levels of PM_{2.5}, surface and upper air winds came from every direction. The majority of the winds on the higher PM_{2.5} days came from the south, west and east directions. The back trajectories show that a majority of the previous day's air came from the south, west and southwest with more stagnant conditions when the air was recirculated over the area. This information suggests that the violating Illinois monitors are impacted from all surrounding areas and local emissions will have a greater impact on the violating monitors.

To further demonstrate this point, LADCO conducted annual PM_{2.5} particulate source apportionment (PSAT) modeling for the Illinois monitoring sites. Chart 2 below shows the PSAT results for Site 170310022, located at Washington High School and the closest Illinois PM_{2.5} monitoring site to the Indiana state line.

This modeling shows the regional areas that impact particular PM_{2.5} monitoring sites. The PSAT results for this particular monitor show that it is overwhelmingly impacted from the Chicago, Illinois portion of the nonattainment area, with a large portion of the emissions originating from area, marine/airplane/rail, mobile and non-EGU emission sources. Lake and Porter county emissions have a lesser impact than Wisconsin, Illinois and boundary conditions.



APPENDIX B

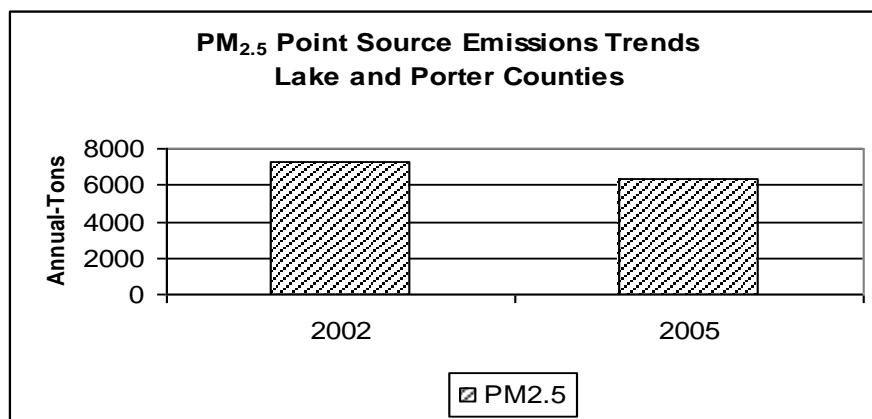
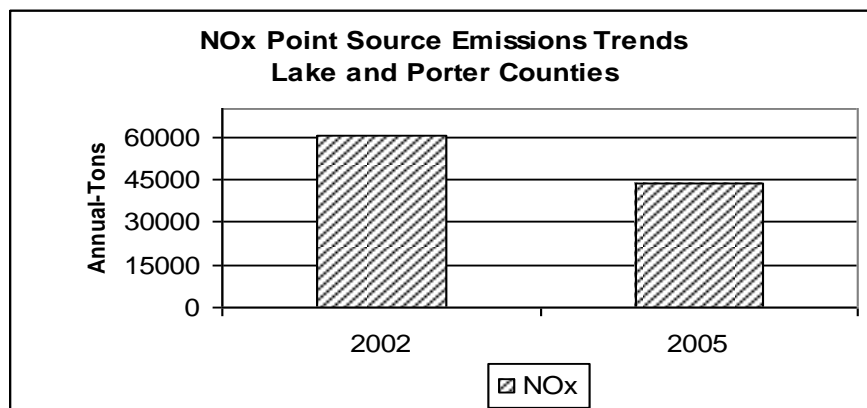
NO_x, SO₂, and Direct PM_{2.5} Point Source Emissions Inventories

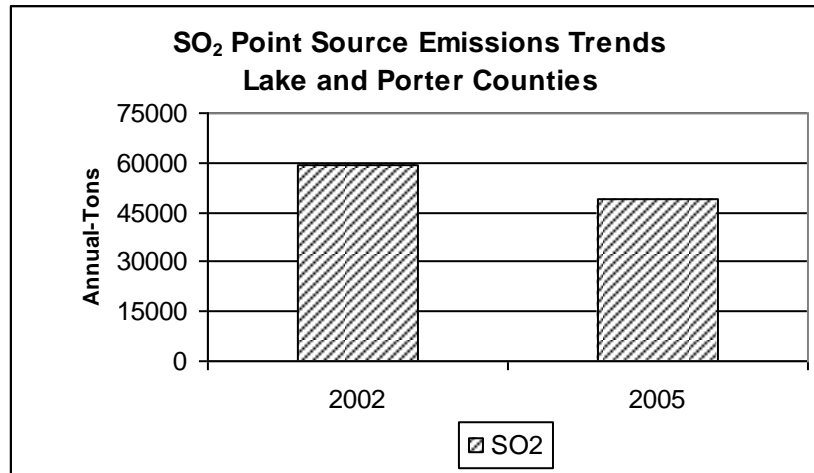
APPENDIX B

Emissions Inventories

POINT

Year	NO _x	PM _{2.5}	SO ₂
2002	60,808.11	7,313.70	59,263.34
2005	43,488.11	6,299.95	48,999.85



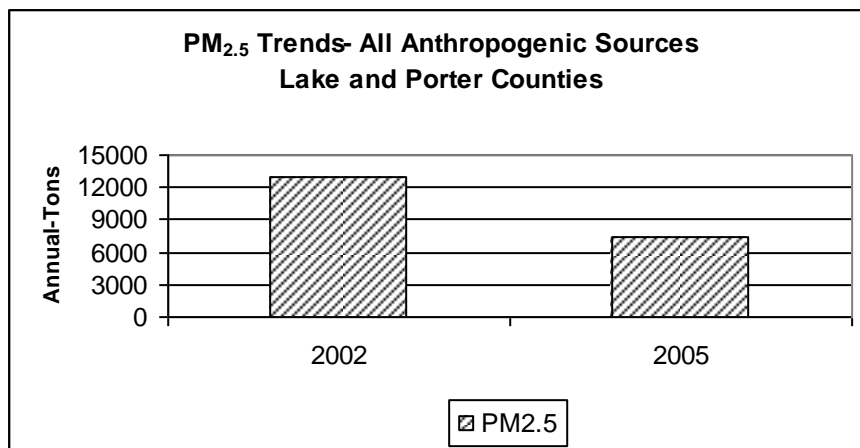
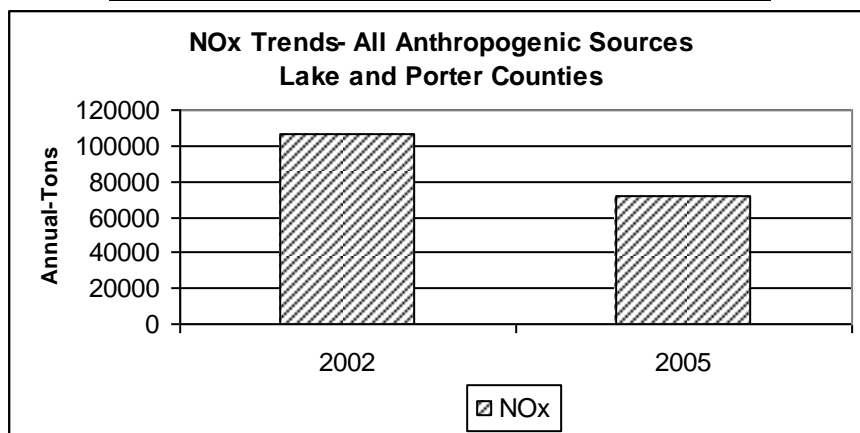


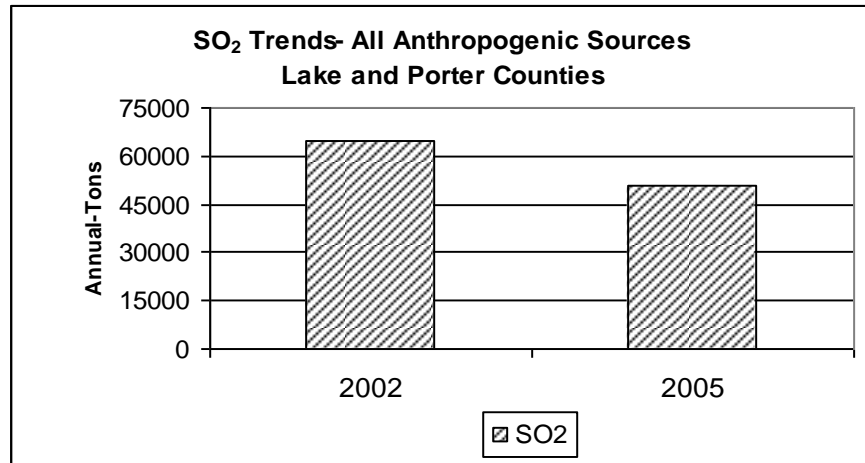
APPENDIX C

**NO_x, SO₂ and Direct PM_{2.5} Emission Trends
All Sources**

TOTAL

Year	NO _x	PM _{2.5}	SO ₂
2002	106,180.29	12,966.68	64,999.42
2005	71,282.12	7,434.48	50,993.81





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APPENDIX C-1

Indiana 2002 Emissions Inventory SIP

INDIANA 2002 EMISSIONS INVENTORY

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
100 NORTH SENATE AVENUE
INDIANAPOLIS, INDIANA

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1) Point Sources

a) *Data Collection Method*

- (1) Indiana requires certain sources to report their emissions annually (326 IAC 2-6). These are generally large industrial sources, utilities, and other assorted source types. Data is collected either electronically or through hardcopy submittals.

ii) Who Reports

- (1) Under Indiana rules major sources of emissions must annually report criteria pollutant emissions. Major sources are defined as the following:
- (2) any source located in Clark, Elkhart, Floyd, Lake, Marion, Porter, Saint Joseph, or Vanderburgh Counties that has the potential to emit more than ten (10) tons per year of volatile organic compounds (VOC) or oxides of nitrogen (NO_x), or
- (3) Any source located in the state that has the potential to emit more than one hundred (100) tons per year of carbon monoxide (CO), VOC, NO_x, particulate matter smaller than ten (10) microns (PM₁₀), or sulfur dioxide (SO₂), or
- (4) .Any source that has the potential to emit five (5) or more tons per year of lead (Pb).

iii) What is reported

- (1) The Indiana Emission Statement Rule requires some specific information be reported in each emissions statement. The following lists information required from the most general facility (a.k.a., plant or source) level to the most specific process (a.k.a., segment) level.
- (2) Source Identification Information
 - (a) Full Name
 - (b) Physical Location
 - (c) Mailing address
 - (d) Latitude and longitude
 - (e) Standard Industrial Code (SIC)
- (3) Operating data
 - (a) Percent annual throughput by quarter
 - (b) Days per week of the normal operating procedure
 - (c) Hours per day of the normal operating procedure
 - (d) Annual fuel or process weight and units
- (4) Emissions Information
 - (a) Estimated actual criteria pollutant emissions
 - (b) Code identifying the emissions estimation methodology
 - (c) Calendar year of the emissions
 - (d) Emission Factor

- (i) One established in the "Compilation of Air Pollutant Emission Factors" (AP-42), or
 - (ii) A site specific value accepted by IDEM
- (e) Source Classification Code
- (f) Control Equipment Information
 - (i) Control Equipment Identification codes
 - (ii) Control efficiency of the equipment
- (g) Certification from the legally responsible plant employee stating that the emissions estimates are accurate to the best of their knowledge.
- (5) Sources with completed Title V permits are also required to Hazardous Air Pollutants (HAPs) for emissions fee billing purposes. Under this requirement it has been determined that only the HAPs that are neither a PM nor a VOC must be reported. The following is a list of those HAPs;
 - (a) Mercury (CAS # 7439976)
 - (b) Methylene Chloride (CAS # 75092)
 - (c) Hydrochloric Acid (CAS # 7647010)
 - (d) Chlorine (CAS # 7782505)
 - (e) Methyl Chloroform (CAS # 71556)
 - (f) Phosphine (CAS # 7803512)
 - (g) Hydrofluoric Acid (CAS # 7664393)

b) When must the reports be submitted

Emission statements from sources located in Clark, Elkhart, Floyd, Lake, Marion, Porter, Saint Joseph, or Vanderburgh Counties must be received by April 15 of the year following the reporting year (e.g.: Sources reporting their calendar year 2000 emissions must submit by April 15, 2001). Sources located elsewhere in the state must submit their emissions statement by July 1. Summary Data

c) How the data is collected

i) Data Disk Creation

Starting in December data disks are created for each company that reported during the previous cycle. These disks will be either sent to the sources or used by IDEM staff to update source data.

ii) Report packages are prepared and sent.

- (1) Packages should be sent to sources located in Clark, Elkhart, Floyd, Lake, Marion, Porter, Saint Joseph, and Vanderburgh Counties by the end of the first week of February.
- (2) Packages should be sent to sources located in the rest of state by the end of the first week of March.

iii) The packages include the following;

- (1) A diskette containing the source's information or hardcopy reporting forms.
- (2) Instructions for filling out either the electronic or hardcopy forms.

- (3) Any special instructions .
- (4) Any special data requests.
- (5) A Form ES for voluntary HAPs reporting.
- (6) A self adhesive mailing label with the address where the statement should be sent.

iv) Completeness Determination

- (1) If it is determined that the submittal is not complete, the source will be contacted and the emission statement returned according to the SOP.
- (2) If it is determined that the submittal is complete, the emission statement will be logged as received.

v) Entered into the emission statement database

- (1) If the submittal is electronic, the data is uploaded to the main database.
- (2) If the submittal is in hardcopy form, the data will be entered into an electronic form and then uploaded to the main database.

vi) No submission

In the event of a source not submitting the emission statement a violation letter will be prepared giving the source 30 days from the date of receipt to submit their emission statement. After that time if the source has not yet reported an enforcement referral will be made.

d) Ensuring the quality of the data

i) Staff Review

- (1) Staff will determine where the changes have occurred.
- (2) Staff will review any other information for inconsistencies (e.g.: Acid Rain Program, TRI)
- (3) Staff will then contact the source about any significant changes.
- (4) Staff will then request the source to resubmit their emissions or will make changes at their request.
- (5) Notes made about the contact with the source will be filed

ii) Summary

After the QA review is complete a summary will be made of changes made, and any recommendations for the next year's emissions collection effort.

e) Submitting the data to EPA.

After completing the quality assurance checks, data will be exported from the state emissions database and submitted to EPA per the requested methodology for incorporation into the National Emissions Inventory

2) Area Sources

Area sources are a collection of emissions that are not calculated in point source inventories. This data is compiled every three years as mandated by EPA. The guidance that is followed is located in the EIIP¹. Emissions from area sources are calculated at the county levels and consist of individual sources that are small, numerous and that have not been inventoried as specific point, mobile, or biogenic according to EIIP. One of the main reasons not to calculate some of these individual sources as point source is that the emissions are usually small.

a) Stationary Fuel Combustion

i) Industrial Fuel Combustion

Source Classification Codes: 2102002000, 2102004000, 2102005000, 2102006000, 2102007000

To calculate for industrial fuel combustion the statewide industrial combustion from the Energy Information Administration for Indiana² and the employment numbers from the County Business Patterns³ was used. To avoid double calculating, the point source totals are subtracted from the statewide totals for industrial fuel combustion. For industrial residual oil category consumption was accounted for in the point source inventory.

For the remaining area sources that were not included in the point source inventory, the remaining fuel was distributed to the county level. The ratio of county to state employment for the manufacturing sector was used. This was done by dividing number of Manufacturing Employees for each county by number of manufacturing employees statewide. In following equation is an example of how the ratio between county to state employment is calculated.

¹ Introduction to Area Source Emission Inventory Development, Revised Final, Prepared by Eastern Research Group, Inc., for the Area Sources Committee Emission Inventory Improvement Program, January 2001. (http://www.epa.gov/ttn/chief/eiip/techreport/volume03/iii01_apr2001.pdf)

² Energy Information Administration, National Energy Information Center, October 2003 (http://www.eia.doe.gov/emeu/states/main_in.html)

³ County Business Patterns: Indiana 2001, U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau, Issued April 2003 (www.census.gov)

Equation 2-1 Ratio of Industrial Employment

$$\frac{\begin{array}{l} \text{\# of industrial employees in Randolph County} \\ \hline \text{\# of employees Statewide} \\ \hline \text{3,150 employees} \\ \hline \text{604,255 statewide} \\ \hline \text{0.00521} \end{array}}{}$$

Table 2-1 Randolph County VOC Emissions for Industrial Natural Gas Usage

Fuel Type	Statewide Consumption Estimates	Point Source Consumption	Area Source Consumption (Total – Point)	Employment Ratio	Estimated Randolph County Consumption
Coal (tons)	5,196,000	3,407,623	1,788,377	0.00521	9,323
Distillate Fuel Oil (gallons)	263,886,000	24,836,351	239,049,649	0.00521	1,246
Residual Fuel Oil (gallons)	All Reported in Point Source				
Natural Gas (million cubic feet)	251,000	135,219	115,781	0.00521	604
LPG (gallons)	75,516,000	774,000	74,742,000	0.00521	390

The emissions from each fuel type were then estimated by multiplying by the emission factors taken from (AP-42).⁴

Equation 2-2 Randolph County VOC Emissions for Industrial Natural Gas Usage

Industrial Natural Gas Combusted × Emission Factor × Conversion Factor

$$604 \text{ MMcf} \times \frac{5.5 \text{ lb}}{\text{MMcf}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} = 1.66 \text{ tons VOC}$$

ii) Commercial/Institutional Fuel Combustion

Source Classification Codes: 2103004000, 2103005000, 2103006000, 2103007000

⁴ AP-42, Compilation of Air Pollutant Emission Factors, Fifth Edition, Volume 1: Chapter 1, External Combustion Sources, Office of Air Quality Planning Standards, U.S. EPA (<http://www.epa.gov/ttn/chief/ap42/ch01/>)

To calculate for commercial/institutional fuel combustion the statewide fuel consumption for commercial/institutional from the Energy Information Administration⁵, the employment numbers from the County Business Patterns⁶, and reported point source fuel consumption was used in the distribution of combustion to the county level. To avoid double calculating the point source totals are subtracted from the statewide totals. The remainder is the area consumption for commercial/institutional fuel combustion for the state. To distribute the remaining fuel to the county level, the ratio of county to state employment for the commercial/institutional sector was used. This was done by dividing sum of employment in wholesale trade, retail trade, finance, insurance, real estate, and services for each county by number of statewide commercial/institutional employees. The ratio is then multiplied by the area source consumption to distribute the fuel to the county level. The following equation demonstrates how the commercial employment ratio is calculated. The following table shows how the commercial/institutional fuels were distributed.

Equation 2-3 Ratio of Commercial Employment

$$\frac{\text{\# of commercial/institutional employees in Fulton County}}{\text{\# of commercial/institutional employees statewide}} = \frac{2,583 \text{ Fulton County}}{1,577,507 \text{ statewide}} = 0.00163$$

Table 2-2 Commercial/Institutional Fuel Consumption in Fulton County

Fuel Type	Statewide Consumption Estimates	Point Source Consumption	Area Source Consumption (Total – Point)	Employment Ratio	Estimated Fulton County Consumption
Distillate Fuel Oil (gallons)	68,040,000	413,329	67,626,671	0.00163	111
Residual Fuel Oil (gallons)	42,000	36,000	0	0.00163	0
Natural Gas (MMcf)	78,000	4,815	73,185	0.00163	119

⁵ Energy Information Administration, National Energy Information Center, October 2003 (http://www.eia.doe.gov/emeu/states/main_in.html)

⁶ County Business Patterns: Indiana 2001, U.S. Department of Commerce, Economics and Statistics Administration, U.S Census Bureau, Issued April 2003 (www.census.gov)

LPG (gallons)	27,468,000	61,000	21,407,000	0.00163	44.876
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To calculate the emission for each fuel type the estimated consumption is then multiplied by the emission factor from AP-42⁷.

Equation 2-4 Commercial/Institutional LP VOC in Fulton County

Liquid Petroleum Gas x emission factor x conversion factor

$$44,876 \text{ gallons} \times \frac{0.5 \text{ lb}}{1,000 \text{ gallon}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} \\ 0.011219 \text{ tons VOC}$$

iii) Residential Fuel Combustion

Source Classification Codes: 2104002000, 2104004000, 2104006000, 2104007000

Residential fuel combustion is calculated by finding a ratio of county to state. The U.S Census Bureau⁸ gives a breakdown of fuels used county by county in each household based on 2000 data. This information can be used to calculate ratios between county and state for each fuel type. The following equation demonstrates how the ratio for coal usage is calculated for Lagrange County.

Equation 2-5 Ratio of Lagrange County Residential Coal Usage

$$\frac{\text{\# of Households Using Coal in Lagrange County}}{\text{\# of Households Using Coal Statewide}} \\ \frac{658 \text{ Lagrange County}}{2077 \text{ statewide}} \\ 0.3168$$

Table 2-3 Residential Fuel Combustion in Lagrange County

Fuel Type	# of Households in Lagrange County	# of Households in State	Ratio of County to State	Statewide Residential Fuel Usage	Estimated Lagrange County Usage
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⁷ AP-42, Compilation of Air Pollutant Emission Factors, Fifth Edition, Volume 1: Chapter 1, External Combustion Sources, Office of Air Quality Planning Standards, U.S. EPA (<http://www.epa.gov/ttn/chief/ap42/ch01/>)

⁸ American Fact Finder, Indiana House Heating Fuel, U.S. Census Bureau, January 16, 2004 (http://factfinder.census.gov/servlet/DTSUBJECTSHOWTABLESServlet?_lang=en&_ts=102002057218)

Coal	658	2077	0.316	30,000	9504
Distillate Fuel Oil	676	60,264	0.011	47,754,000	535
Natural Gas	4915	1,510,378	0.003	147,000	478
LPG	3040	209,401	0.014	155,610,000	2259

iv) Residential Heating Using Wood

Source Classification Code: 2104008001, 2104008002, 2104008003, 2104008004, 2104008010
2104008030 and 2104008050

Residential heating with wood is calculated by first finding the total estimates of wood consumption for Indiana. The total amount of wood burned was found for 2000 at the Energy Information Administration⁹. The amount of wood is reported in cord consumed and was converted to tons by multiplying the total cord consumed by 1.25. To adjust to the amount of wood consumed for 2002, a ratio of energy consumption by energy source¹⁰ for 2000 and 2002 was multiplied by the total amount of wood consumed for 2000. These calculations are demonstrated in the following equations. That tonnage is then broken out into three categories (fireplaces: without inserts, fireplaces: inserts and woodstoves) by using the ratio of the estimates performed by EPA¹¹. The estimates for each category are then allocated to equipment types designated by SCC. This is shown in the EPA document by taking the percent of total wood consumption for each SCC code shown in the following table.

⁹ Residential Energy Consumption Estimates, 1960-2000, Indiana, from the Energy Information Administration (http://www.eia.doe.gov/emeu/states/sep_use/res/use_res_in.html#footnotes)

¹⁰ Biomass Energy Consumption by Energy Source and Energy Use Sector, 1998-2002, from the Energy Information Administration (http://www.eia.doe.gov/cneaf/solar.renewables/page/rea_data/table7.html)

¹¹ Appendix A- Criteria and HAP Emissions Estimation Methodology, January 2004, Prepared for Emission Factor and Inventory Group Emissions, Monitoring and Analysis Division Office of Air Quality Planning and Standards, U.S. EPA, By E.H. Pechan & Associates, Inc., March 2004 (ftp://ftp.epa.gov/pub/EmisInventory/prelim2002nei/nonpoint/documentation/2002prelimneinonpt_032004.pdf)

Equation 2-6 Tons Firewood Consumed

$$\begin{array}{l} 305,000 \text{ Indiana cord consumed} \times \frac{1.25 \text{ ton}}{\text{Cord}} \\ 381,250 \text{ tons of wood} \end{array}$$

Equation 2-7 Consumption Adjustment

$$\begin{array}{l} 381,250 \text{ tons} \times \frac{350 \text{ (2002 energy consumption)}}{433 \text{ (2000 energy consumption)}} \\ 308,170 \text{ tons} \end{array}$$

Table 2-4 Wood Consumption by Device

Types of Device	SCC's for Fireplaces with Inserts	SCC's for Woodstoves	Percent of Total Wood Combustion
Non-certified	2104008002	2104008010	92
Certified non- catalytic	2104008003	2104008050	5.7
Certified catalytic	2104008004	2104008030	2.3

Once the total wood consumed for each category is calculated for the state, a ratio of county to state is calculated. This is done by finding a ratio of the statewide total of households and the county total of households that burn wood from the U.S. Census Bureau¹². The latest estimates available are from the 2000 census.

Equation 2-8 Ratio Wood Heating in Huntington County

$$\begin{array}{l} \frac{\text{\# of Households in Huntington County using wood for heat}}{\text{\# of Households in state using wood for heat}} \\ \frac{152}{33,075} \\ 0.0045 \end{array}$$

The ratio is then multiplied by the residential fuel consumption as allocated for each of the SCC codes as shown in the following table.

¹² American Fact Finder, Indiana House Heating Fuel, U.S. Census Bureau, January 16, 2004 (<http://factfinder.census.gov>)

Table 2-5 Huntington County Wood Consumption by SCC

Description	SCC	Huntington County Ratio	Indiana Fuel Consumed	Huntington Throughput
Fireplaces: Without Inserts	2104008001	0.0045	36,299.90	166.82
Fireplaces: Inserts – Catalytic	2104008002	0.0045	115,569.02	531.11
Fireplace: Inserts – Non- catalytic	2104008003	0.0045	7,160.25	32.90
Fireplaces: Inserts – Catalytic. EPA certified	2104008004	0.0045	2,889.23	13.27
Woodstoves – Conventional	2104008010	0.0045	134,551.23	618.34
Woodstoves – Catalytic	2104008030	0.0045	8,336.33	38.31
Woodstoves –Non- catalytic	2104008050	0.0045	3,363.78	15.45

The throughput is then multiplied by the emission factors for wood taken from the Criteria and HAP Emissions Estimation Methodology Document.

Table 2-6 Huntington County Estimated PM2.5 Emissions

SCC	Throughput	PM2.5 Factor	PM2.5 Estimated Emissions (tons/yr)
2104008001	166.82	11.8	0.985
2104008002	531.11	30.6	8.124
2104008003	32.90	19.6	0.323
2104008004	13.27	20.4	0.132
2104008010	618.34	30.6	9.455
2104008030	38.31	20.4	0.387
2104008050	15.45	19.6	0.147

b) Industrial Processes

i) Bakeries

Source Classification Code: 2302050000

The calculation for bakery emissions is located in the EIIP document “Area Source Category Method Abstract – Bakeries”¹³. The document suggests finding a per capita consumption factor. The per capita consumption factor is calculated by finding the reported weight of yeast-raised products reported under bread, cake, and frozen bakery products from the only data that is available at this time the 1997 Economic Census¹⁴ and the 1997 U.S. population¹⁵. The per capita consumption factor is multiplied by the Indiana population for 2002. This number is from the U.S. Census Bureau¹⁶. The reported point source throughput for both the straight-dough and sponge-dough is subtracted from the total state throughput. The remainder is the area throughput for the state. The area throughput is then multiplied by the straight-dough emission factor of 0.5 lbs/1,000 pounds baked. It is assumed that sponge-dough is reported in the point source inventory. The remainder is then divided by the Indiana Population to calculate a per capita factor to be applied to each county.

Equation 2-9 Bakery Emission Factor

$$\begin{aligned} & \frac{\text{State population} \times 71 \text{ lb/person}}{2000 \text{ lbs}} = \text{tons consumed statewide} \\ & \frac{6,159,068 \times 71}{2000} = 218,646.9 \text{ tons} \\ & \text{tons consumed statewide} - \text{reported point source} = \text{area source activity} \\ & 218,646.9 - 136,814 \text{ (straight \& sponge dough)} = 81,832.9 \text{ tons} \\ & 81,832.9 \text{ tons} \times 2000 \text{ lbs} = 163,665,800 \text{ lbs} \\ & 163,665,800 \text{ lbs} \times \frac{0.5 \text{ lbs}}{1000 \text{ lbs baked}} = 81,832.9 \text{ lbs} \\ & \frac{81,832.9 \text{ lbs}}{6,159,068 \text{ population}} = 0.0133 \text{ lbs/person} \end{aligned}$$

¹³ Area Source Category Method Abstract –Bakeries, July 1999, Emission Inventory Improvement Program, Volume III, U.S. EPA.(<http://www.epa.gov/ttn/chief/eiip/techreport/volume03/index.html>)

¹⁴ The 1997 Economic Census, Manufacturing, Subject Series, Issued August 2001 (<http://www.census.gov/prod/ec97/97m31s-ms.pdf>)

¹⁵ Population Estimates Program, Population Division, U.S. Census Bureau, June 28, 2000 (<http://eire.census.gov/popest/archives/pre1980/popclockest.txt>)

¹⁶ Population Division, U.S. Census Bureau, April 17, 2003 (<http://eire.census.gov/popest/data/counties/tables/CO-EST2002/CO-EST2002-01-18.php>)-

Equation 2-10 Marion County VOC Emissions for Bakery Processes

$$863,429 \text{ people} \times \frac{0.0133 \text{ lbs}}{\text{person}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = 5.74 \text{ tons}$$

c) Solvent Utilization

i) Architectural Coatings

Source Classification Code: 2401001000

To estimate the emissions for Architectural Coatings a specific emission factor is developed each year. The reason this is done is the amount of paint sales decrease each year. The emission factor is calculated by adding both the solvent-based paints for architectural coatings and the water based paints for architectural coatings. This data is found at the Census Bureau¹⁷.

Table 2-7 2002 National Solvent Coating Sales

Solvent Type	1,000 gallons
Exterior Solvent Type	70,967,000
Interior Solvent Type	48,947,000
Architectural Lacquers	5,808,000
Architectural Coating	
N.S.K.	1,981,000
Total Solvents	127,703,000

Table 2-8 2002 National Water Based Coating Sales

Water Type	1,000 gallons
Exterior Water Type	182,423,000
Interior Water Type	407,104,000
Total Water Type	589,527,000

¹⁷ U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau, Issued July 2003 (<http://www.census.gov/industry/1/ma325f02.pdf>)

Once the coatings are calculated the solvent- based coatings are multiplied by the average solvent-based coating content and for the water-based coating, the number is multiplied by the average water-based coating content found in the EIIP document¹⁸.

Table 2-9 VOC Content of Coatings

Coating Type	VOC Content lb/gal
Solvent Based	3.87
Water Based	0.74

In the equation 2.2.2.1-1 and 2.2.2.1-2, the total national emissions for solvent-based and water-based architectural surface coating are calculated. In table 2.2.2.1-4, these two numbers are added together for the total national emissions.

Equation 2-11 Solvent Based Architectural VOC Emissions

Total solvents × solvent emission factor = national emissions

$$127,703,000 \text{ gal} \times \frac{3.87 \text{ lb}}{\text{gal}} = 494,210,610 \text{ lbs VOC}$$

Equation 2-12 Water Based Architectural VOC Emissions

Total waterbased × waterbased emission factor

$$589,527,000 \text{ gal} \times \frac{0.74 \text{ lb}}{\text{gal}} = 436,249,980 \text{ lbs VOC}$$

Table 2-10 National Architectural Surface Coating VOC Emissions

National VOC Emissions from Architectural Surface Coating	
Coating Type	VOC (lb)
Solvent Based	494,210,610
Water Based	436,294,980
Total	930,460,590 lbs VOC

¹⁸ Emission Inventory Improvement Program, Volume III, Chapter 3 Architectural Surface Coating , November 1995 (<http://www.epa.gov/ttn/chief/eiip/techreport/volume03/archsfc.pdf>)

The total national VOC emissions from architectural surface coating is divided by the total national population as seen in the following equation. Population is from the “Annual Population Estimates 2000-2002” U.S. Census Bureau¹⁹.

Equation 2-13 Architectural Surface Coating Emission Factor Calculation

$$\frac{\text{National VOC Emissions}}{\text{National Population}} = \text{Average Emission Per Person}$$

$$\frac{930,460,590 \text{ lbs}}{288,368,698} = 3.2266 \text{ lb/person}$$

Equation 2-14 Architectural Surface Coating VOC Emissions - Marion County

$$863,429 \text{ people} \times \frac{3.2266 \text{ lb}}{\text{person}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} = 1,392.97 \text{ tons}$$

ii) Automobile Refinishing

Source Classification Code: 2401005000

The guidance used in calculating the area emissions for automobile refinishing is found in the EIIP document²⁰. It suggests using an emission factor of 3,519 pounds per employee and the number of employees for SIC 7532 – Body Repair and Paint Shops found in the 2001 County Business Patterns²¹. To avoid double calculating automobile refinishing the point source employees was subtracted from total employment for each county. The following equation shows how the automobile refinishing in Sullivan County is calculated.

Equation 2-15 Estimated Automobile Refinishing Emissions for Sullivan County

$$\# \text{ of employees} \times \frac{3,519 \text{ lb}}{\text{employee}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} = \text{Tons of VOC}$$

$$17 \text{ employees} \times \frac{3,519 \text{ lb}}{\text{employee}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} = 29.1 \text{ tons of VOC}$$

¹⁹ Annual Population Estimates 2000-2002, Population Division, U.S. Census Bureau, July 2003 (<http://eire.census.gov/popest/data/national/tables/NA-EST2002-01.php>)

²⁰ Emission Inventory Improvement Program, Volume III, Chapter 13 Auto Body Refinishing , (<http://www.epa.gov/ttn/chief/eiip/techreport/volume03/archsfc.pdf>)

²¹ County Business Patterns, U.S. Census Bureau , 2001 (<http://censtats.census.gov/cgi-bin/cbpnaic/cbpdetl.pl>)

iii) Traffic Markings

Source Classification Codes: 2401008000

The guidance followed in calculating the area emissions for traffic marking is in the Volume III, Chapter 14 final draft of the EIIP document²². First, the national emissions are calculated and this is done by finding the amount of sales for traffic marking paints in the U.S. Census Bureau²³. This number is then multiplied by the national average VOC content for water and solvent-based paints located in the EIIP document. The following equation shows how the national emissions were calculated.

Equation 2-16 National Estimated Emissions for Traffic Markings

National Sales of Traffic Markings \times Average VOC Content = National Emissions

$$39,397,000 \text{ gallons} \times \frac{3.36 \text{ lb}}{\text{gallon}} \\ 132,373,920 \text{ lb VOC}$$

The national emissions is then allocated to the state level by finding the amount of money spent in Indiana and nationally on highway maintenance and the following equations shows how this is done.

Equation 2-17 Estimated Indiana Emissions for Traffic Markings

National Emissions $\times \frac{\text{Indiana Sales}}{\text{National Sales}} = \text{State Level Emissions}$

$$132,373,920 \text{ Lb/VOC} \times \frac{\$1,975,066,000}{\$104,918,811,000} \\ 2,491,900 \text{ lb VOC}$$

The emission factor for traffic markings is calculated by dividing the state level emissions by the total number of roadway miles in Indiana. The total number of roadway miles was from the information that was given by Leah Snow in the Program Development Division, Highway Statistics, Indiana Department of Transportation.

²² Traffic Markings, Volume III: Chapter 14, Prepared by the Eastern Research Group for the Area Sources Committee of the Emission Inventory Improvement Program, May 1997 (<http://www.epa.gov/ttn/chief/eiip/techreport/volume03/iii14.pdf>)

²³ "Paint and Allied Products Information", Economics and Statistics Administration, U.S. Census Bureau (<http://www.census.gov/industry/1/ma325f02.pdf>)

Equation 2-18 Indiana Emission Factor for Traffic Markings

$$\frac{\text{State level emissions}}{\text{Indiana Roadway Miles}} = \text{emission factor}$$
$$\frac{2,491,900 \text{ lbs}}{94,288 \text{ miles}} = 26.42 \text{ lb/mile}$$

The emission factor is then multiplied by the total number of roadway miles in each county to distribute the emissions to each county as shown in the following equation.

Equation 2-19 Estimated VOC from Traffic Markings for Carroll County

County Roadway Miles \times emission factor \times conversion factor = VOC emissions

$$914.13 \text{ miles} \times \frac{26.42 \text{ lb}}{\text{mile}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} = 12.07 \text{ tons}$$

iv) Industrial Surface Coating

Source Classification Codes: 2401015000, 2401020000, 2401030000, 2401040000, 2401045000, 2401055000, 2401060000, 2401065000, 2401070000, 2401075000, 2401080000, 2401090000, 2401100000, 2401200000

The Guidance followed to calculate for Industrial Surface Coating was from the EIIP guidance document²⁴, either an employment based emission factor was calculated, population based emission factor was calculated or a national default emission factor was used. The following table shows how each category for industrial surface coating was calculated.

Table 2-11 Employment Based Emission Factor for Industrial Surface Coating

SCC	Description	SIC's	Statewide Employment	Point Source Employment	Point Source Emissions (tons)	Emission Factor (ton/employee)
2401015000	Factory Finished Wood	2426-2429, 243-245, 2492,	13,186	5794	3,727	.643

²⁴ Industrial Surface Coating, Chapter 8, Volume III, Prepared by TRC Environmental Corporation for the Area Source Committee of the Emission Inventory Improvement Program, September 1997 (<http://www.epa.gov/ttn/chief/eiip/techreport/volume03/iii08.pdf>)

SCC	Description	SIC's	Statewide Employment	Point Source Employment	Point Source Emissions (tons)	Emission Factor (ton/employee)
		2499				
2401020000	Wood Furniture	25	14,653	13257	3470	.265
2401030000	Paper Coating	26	7571	5114	2797	.546
2401040000	Metal Cans *	341	401	NA	NA	3.015
2401045000	Metal Coils *	3479	2644	2019	NA	1.439
2401055000	Machinery and Equipment	35	40327	8520	357	.0415
2401060000	Appliances *	363	1805	1400	NA	.2315
2401065000	Electronic and Other Electrical	3612, 3357	1884	1809	NA	.145
2401070000	New Motor Vehicles **	3711	49799	47929	NA	Emissions Reported in Point Sources
		37				
2401075000	Other Transportation	(not 3711, 373)	60,694	54,991	3,662	.063
2401080000	Marine Coatings	373	3048	4263	NA	.154

*** The National default emission factor used because the percent of reporting sources was low.**

**** Emissions reported in point source.**

Once the emission factors for the employee based factors were calculated for industrial surface coating, they were multiplied by the employees for each county. The following equation shows an example of how the emission for wood furniture in Elkhart County is calculated.

Equation 2-20 Elkhart County Wood Furniture Manufacturing Emissions

of area source employees × emission factor × conversion factor = Estimated Emissions

$$836 \text{ area source employees} \times \frac{530 \text{ lbs}}{\text{employee}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} \\ 221.54 \text{ tons VOC}$$

Table 2-12 Population Based Emission Factors Used for Industrial Surface Coating

SCC	Description	Emission Factor (lb/person)
2401090000	Miscellaneous Manufacturing	0.600
2401100000	Industrial Maintenance Coatings	0.800
2401200000	Other Special Purpose Coatings	0.800

The estimated emissions for industrial surface coating using the default emission factor based on population are multiplied by the 2002 county population. The numbers are found at the U.S. Census Bureau²⁵. The following equation shows an example of industrial maintenance coatings in Delaware County.

Equation 2-21 Industrial Maintenance Coating VOC Emissions - Delaware County

County population × default emission factor × conversion factor = estimated emissions

$$8,197 \text{ population} \times \frac{0.8 \text{ lb}}{\text{person}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} \\ 47.27 \text{ tons VOC}$$

v) Degreasing

Source Classification Code: 2415230000, 2415245000, 2415345000, 2415360000

To estimate the emissions for degreasing a default emission factor is used. The factor from the EIIP document²⁶ is used because not all degreasing activities are reported. The following table lists the Source Classification Codes and the industries that are affected.

²⁵ Population Division, U.S. Census Bureau, April 2003

(<http://eire.census.gov/popest/data/counties/tables/CO-EST2002/CO-EST2002-01-18.php>)

²⁶ Solvent Cleaning, Prepared by the Eastern Research Group, for the Area Sources Committee, Emission Inventory Improvement Program Volume III, September 1997
(<http://www.epa.gov/ttn/chief/eiip/techreport/volume03/iii06fin.pdf>)

Table 2-13 Source Classification Codes and Industries Associated with Degreasing

SCC	SIC	Description
2415230000	36	Electronic and other electronic equipment
2415245000	25	Furniture and fixtures
	33	Primary metal industries
	34	Fabricated metal products
	35	Industrial machinery and equipment
	37	Transportation equipment
	38	Instruments and related products
	39	Miscellaneous manufacturing industries
	417	Bus Terminal and Service Facilities
	423	Trucking terminal facilities
	551	New and used car dealers
	552	Used car dealers
	554	Gasoline service stations
	555	Boat dealers
	556	Recreational vehicle dealers
	753	Automotive repair shops
2415345000	25	Furniture and fixtures
	33	Primary metal industries
	34	Fabricated metal products

SCC	SIC	Description
	35	Industrial machinery and equipment
	36	Electronic and other electronic equipment
	37	Transportation equipment
	38	Instruments and related products
	39	Miscellaneous manufacturing industries
2415360000	417	Bus Terminal and Service Facilities
	423	Trucking terminal facilities
	551	New and used car dealers
	552	Used car dealers
	554	Gasoline service stations
	555	Boat dealers
	556	Recreational vehicle dealers
	753	Automotive repair shops

Table 2-14 Emission Factors and Emissions for Huntington County

SCC	Description	Emission Factor (lb/employee)	Employment	VOC (Tons/yr)
2415230000	Electronic Vapor & In-Line Cleaning	29	440	6.38
2415245000	Miscellaneous Manufacturing Vapor & In-Line	9.8	1066	5.22

2415345000	Miscellaneous Manufacturing	24	1002	12.02
2415360000	Cold Cleaning- Automotive Repair	270	402	54.27

vi) Dry Cleaners

Source Classification Code: 2420010370

The method used in calculating the emission factor for dry cleaning is from Volume III: Chapter 4 of the EIIP document. The emission factor is calculated by finding the number of employees county wide and statewide for SIC 7216 (Laundry and Garment Services). The numbers used in this method are from the 2001 County Business Pattern²⁷. This method takes the sum of employment from the counties and divides by the statewide total. This is shown in the following equation.

Equation 2-22 Dry Cleaner Emission Factor

$$\frac{3554 \text{ (County Total)}}{4224 \text{ (State Total)}} \times 2000 = \frac{1683 \text{ lb}}{\text{employee}}$$

Equation 2-23 Dry Cleaner Emissions for Delaware County

$$74 \text{ employees} \times \frac{1683 \text{ lb}}{\text{employee}} \times \frac{2000 \text{ lbs}}{\text{ton}} = 62.27 \text{ tons}$$

vii) Graphic Arts

Source Classification Code: 2425000000

The Graphic Arts emissions were calculated by following several steps from the EIIP document²⁸. A per capita factor of 1.3 lb/person is multiplied by state population to give total emissions for the state. The total state emissions is then distributed to each county by developing an emission factor by subtracting the point source emissions from the total state emissions and dividing by state population as shown in the following equation.

²⁷ 2001 County Business Patterns, Economics and Statistics Administration, U.S. Census Bureau, Issued April 2003

²⁸ Graphic Arts prepared by Eastern Research Group for the Area Sources Committee Emission Inventory Improvement Program Final Report, Volume III: Chapter 7, November 1996
(<http://www.epa.gov/ttn/chief/eiip/techreport/volume03/iii07.pdf>)

Equation 2-24 Graphic Arts Emission Factor

$$\begin{array}{c} 6,159,068 \text{ population} \times \frac{1.3\text{lb}}{\text{person}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} \\ 4003.39 \text{ Tons} \end{array}$$

4003.39 total tons - 527.43 point source emissions
3475.96 tons Area Source Emissions

$$\begin{array}{c} \frac{3475.96 \text{ Tons}}{6,159,068 \text{ population}} \times \frac{2000 \text{ lb}}{\text{ton}} \\ \frac{1.13 \text{ lb}}{\text{person}} \end{array}$$

Equation 2-25 Graphic Art Emissions for Hancock County

$$\begin{array}{c} 58,343 \text{ population} \times \frac{1.13\text{lb}}{\text{person}} \times \frac{\text{ton}}{2000 \text{ lb}} \\ 32.96 \text{ tons} \end{array}$$

viii) Rubber and Plastics

Source Classification Code: 2430000000

To calculate the emissions for the Rubber and Plastics category an emission factor is developed by finding the point source emissions for SIC 30 and dividing this number by point source employment. The point source employment is found in the 2001 County Business Patterns²⁹.

Equation 2-26 Rubber and Plastics Emission Factor

$$\begin{array}{c} \frac{2656 \text{ tons VOC}}{17546 \text{ employees}} \times \frac{2000 \text{ lb}}{\text{ton}} \\ \frac{303 \text{ lb}}{\text{employee}} \end{array}$$

²⁹ 2001 County Business Patterns, Economics and Statistics Administration, U.S. Census Bureau, Issued April 2003

Equation 2-27 Rubber and Plastics VOC emissions for Elkhart County

$$1089 \text{ employees} \times \frac{303 \text{ lb}}{\text{employee}} \times \frac{2000 \text{ lb}}{\text{ton}} = 164.845 \text{ tons}$$

ix) Miscellaneous Industrial Adhesives

Source Classification Code: 2440020000

The emissions for Miscellaneous Industrial Adhesives was developed using the guidance in the Air Pollutant Emission Trends Document³⁰. Using the total National Emissions from Industrial Adhesives and the National Manufacturing Employment a per employee emission factor was developed.

Equation 2-28 Miscellaneous Industrial Adhesives Emission Factor

$$\frac{160,000 \text{ tons national emissions}}{15,950,424 \text{ manufacturing employment}} = \frac{20.06 \text{ lb}}{\text{employee}}$$

The activity that was used was the manufacturing employment obtained from the 2001 County Business Patterns. The employment from point source facilities that report using industrial adhesives was removed to avoid double counting of the VOC emissions. The remaining employment was then distributed to each county. The following equation shows how the VOC emissions for Cass County were estimated.

Equation 2-29 Miscellaneous Adhesive Emissions for Cass County

$$5840 \text{ employees} \times \frac{20.06 \text{ lb}}{\text{employee}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} = 58.75 \text{ tons}$$

x) Commercial/Consumer Solvents

Source Classification Codes: 2460100000, 2460200000, 2460400000, 2460500000, 2460600000, 2460800000, 2460900000

³⁰ National Emission Inventory (NEI), Air Pollutant Emission Trends, U.S. Environmental Protection Agency, Updated August 2003 (<http://www.epa.gov/ttn/chief/trends/>)

The guidance followed to estimate the emissions for the commercial/consumer solvents is from the EIIP document³¹. To calculate the emissions the population for each county is needed and this is obtained from the U.S. Census Bureau³². The following table shows the emission factors that are used in the emission calculations.

Table 2-15 Emission Factors for Commercial/Consumer Solvents

Source Classification Codes	Product Category	Per Capita Emission Factor (lb VOC/person)
2460100000	Personal Care Products	2.32
2460200000	Household Products	0.79
2460400000	Automotive Aftermarket Products	1.36
2460500000	Coatings and Related Products	0.95
2460600000	Adhesives and Sealants	0.57
2460800000	FIFRA-Regulated Products	1.78
2460900000	Miscellaneous Products	0.07

Table 2-16 Commercial/Consumer Solvents Emissions for Randolph County

Source classification Code	Product Category	Emission Factor (lb VOC/person)	Population	VOC Emissions (tons/yr)
2460100000	Personal Care Products	2.32	27,191	31.54
2460200000	Household Products	0.79	27,191	10.74

³¹ "Consumer and Commercial Solvent Use", Final Report, Prepared by the Eastern Research Group, Inc. for the Area Sources Committee, Emissions Inventory Improvement Program, August 1996 (<http://www.epa.gov/ttn/chiep/eiip/techreport/volume03/iii05.pdf>)

³² "Indiana County Population Estimates, April 1, 2000 to July 1, 2002" (<http://eire.census.gov/popest/data/counties/tables/CO-EST2002/CO-EST2002-01-18.php>)

2460400000	Automotive Aftermarket Products	1.36	27,191	18.48
2460500000	Coatings and Related Products	0.95	27,191	12.91
2460600000	Adhesives and Sealants	0.57	27,191	7.74
2460800000	FIFRA- Regulated Products	1.78	27,191	24.19
2460900000	Miscellaneous Products	0.07	27,191	.95

xi) Asphalt Emulsions

Source Classification Code: 2461022000

To calculate the amount of asphalt emissions for each county the amount of asphalt used for the state is obtained from the 2001 State Energy Data Report³³ and the Indiana Department of Transportation supplied the amount of roadway miles. The following equation shows how the asphalt was distributed for Crawford County.

Equation 2-30 Asphalt Usage in Crawford County

$$\frac{983.91 \text{ County Miles}}{94,288.11 \text{ Statewide Miles}} \times 5,512,000 \text{ Barrels} \\ 34,135 \text{ tons}$$

Once the total usage is found, the emission factor from the EIIP document is then applied to the county total to calculate the emissions for VOC.

³³ Petroleum Energy Consumption Estimates by Source, 1960-2001, Indiana, Energy Information Administration, National Energy Information Center, October 2003
(http://www.eia.doe.gov/emeu/states/sep_use/pet/use_pet_in.html)

Equation 2-31 Asphalt Emissions in Crawford County

County usage × emission factor = County VOC emissions

$$34,135 \text{ tons} \times \frac{9.2 \text{ lb}}{\text{barrel}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} = 157.02 \text{ tons}$$

xii) Pesticide Usage

Source Classification Code: 2461800000

Pesticide usage was calculated by using a state specific emission factor. The emission factor was developed using a methodology that included the retrieval of information about pesticides used, an emission factor for each, a calculation about the inert ingredients in each, and an estimate of the amount of crop oil concentrate (an adjuvant used for the application of herbicides) used in the state of Indiana. In calculating this factor more state and pesticide specific information is used, and this method is considered a better estimate than relying on the national default.

The Indiana Agriculture Statistics Service has published the amount of active ingredients from herbicides and insecticides applied to Indiana fields. This list of herbicides and their corresponding brand names are given. Using this information an estimate of the amount of herbicide applied and the amount of the inert ingredients that were VOC estimated. The following tables demonstrate the calculations that were performed to estimate the emissions from herbicide and insecticide application.

Table 2-17 VOC Emissions from Herbicides applied to Soybeans

Agricultural Chemical	Total Reported Applied (1,000 lbs)	Estimated Total Applied (lbs)	Active Ingredient Applied Indiana (lb)	Emission Factor (lb/ton)	Active Ingredient (%)	Inert Content (%)	VOC Content of Inert (%)	Herbicide Emissions (tons)	Inert Emissions (tons)
Soybeans									
2,4-D	2,802	3,592,308	486000	700	95.0%	5.0%	56.0%	85.05	7.16
2,4-DB	24	30,769							
Acifluorfen	1,346	1,725,641	84000	700	20.1%	79.9%	21.0%	14.70	35.06
Alachlor	5,036	6,456,410							
Bentazon	4,562	5,848,718	191000	700	53.0%	47.0%	21.0%	33.43	17.78
Chlorimuron-ethyl	143	183,333	22000	700	56.3%	43.7%	25.0%	3.85	2.13
Clethodim	398	510,256	28000	700	12.6%	87.4%	66.0%	4.90	64.09
Clomazone	928	1,189,744							
Dimethenamid	320	410,256	143000	700	63.1%	36.9%	56.0%	25.03	23.37
Ethalfuralin	215	275,641							
Fenoxaprop	246	315,385	14000	700	12.5%	87.5%	66.0%	2.45	32.34
Fluazifop-P-butyl	342	438,462	115000	700	46.5%	53.5%	66.0%	20.13	43.66
Flumetsulam	54	69,231							
Flumiclorac Pentyl	24	30,769							
Fomesafen	716	917,949	186000	700	22.8%	77.2%	0.0%	32.55	0.00
Glyphosate	8,687	11,137,179	1727000	700	41.0%	59.0%	66.0%	302.23	820.11
Imazaquin	688	882,051	171000	700	17.6%	82.4%	66.0%	29.93	264.20
Imazethapyr	1,229	1,575,641	95000	700	70.0%	30.0%	56.0%	16.63	11.40
Lactofen	355	455,128							

Agricultural Chemical	Total Reported Applied (1,000 lbs)	Estimated Total Applied (lbs)	Active Ingredient Applied Indiana (lb)	Emission Factor (lb/ton)	Active Ingredient (%)	Inert Content (%)	VOC Content of Inert (%)	Herbicide Emissions (tons)	Inert Emissions (tons)
Linuron	225	288,462							
Metolachlor	4,221	5,411,538	238000	700	86.4%	13.6%	100.0%	41.65	18.73
Metribuzin	1,460	1,871,795	140000	700	75.0%	25.0%	28.0%	24.50	6.53
Paraquat	340	435,897							
Pendimethalin	13,810	17,705,128	1198000	700	42.3%	57.7%	90.1%	209.65	424.88
Quizalofop-ethyl	190	243,590	18000	700	10.3%	89.7%	56.0%	3.15	43.89
Sethoxydim	1,158	1,484,615	50000	700	18.0%	82.0%	100.0%	8.75	113.89
Thifensulfuron	15	19,231	1000	700	25.0%	75.0%	28.0%	0.18	0.42
Trifluralin	10,008	12,830,769							
Unclassified	1087	1,393,590	938000	700				164.15	224.01
Subtotal	60,629	77,729,487	5,845,000					1,022.87	2,153.67

Table 2-18 VOC Emissions from Herbicides Applied to Corn

Agricultural Chemical	Total Reported Applied (1,000 lbs)	Estimated Total Applied (lbs)	Active Ingredient Applied Indiana (lb)	Emission Factor (lb/ton)	Active Ingredient (%)	Inert Content (%)	VOC Content of Inert (%)	Herbicide Emissions (tons)	Inert Emissions (tons)
Corn									
2,4-D	3,237	3,661,765	289,000	700	95.0%	5.0%	56.0%	50.58	4.26
Acetochlor	29,850	33,766,968	3,052,000	700	74.8%	25.2%	56.0%	534.10	287.90
Alachlor	10,188	11,524,887	586,000	700	73.0%	27.0%	56.0%	102.55	60.69
Atrazine	53,466	60,481,900	6,672,000	700	43.0%	57.0%	21.0%	1,167.60	928.65

Agricultural Chemical	Total Reported Applied (1,000 lbs)	Estimated Total Applied (lbs)	Active Ingredient Applied Indiana (lb)	Emission Factor (lb/ton)	Active Ingredient (%)	Inert Content (%)	VOC Content of Inert (%)	Herbicide Emissions (tons)	Inert Emissions (tons)
Bentazon	806	911,765							
Bromoxynil	1,345	1,521,493							
Butylate	2,475	2,799,774							
Clopyralid	29	32,805							
Cyanazine	20,795	23,523,756	1,859,000	700	43.0%	57.0%	10.0%	325.33	123.21
Dicamba	5,545	6,272,624	163,000	700	48.2%	39.8%	21.0%	28.53	14.13
Dimethenamid	4,110	4,649,321	260,000	700	63.1%	36.9%		45.50	42.50
EPTC	5,117	5,788,462							
Flumetsulam	49	55,430							
Glyphosate	2,200	2,488,688	161,000	700	41.0%	59.0%	66.0%	28.18	76.46
Halosulfuron	46	52,036							
Imazethapyr	20	22,624							
Metolachlor	41,135	46,532,805	3,744,000	700	86.4%	13.6%	100.0%	655.20	294.67
Metribuzin	38	42,986							
Nicosulfuron	245	277,149	20,000	700	83.8%	16.2%	25.0%	3.50	0.48
Paraquat	637	720,588	211,000	0	37.0%	63.0%	21.0%	0.00	37.72
Pendimethalin	2,631	2,976,244							
Primisulfuron	106	119,910	5,000	700	43.0%	57.0%	25.0%	0.88	0.83
Propachlor	337	381,222							
Prosulfuron	59	66,742							
Rimsulfuron	6	6,787							
Simazine	2,059	2,329,186							
Thifensulfuron	3	3,394							
Unclassified	443	501,131	1,834,000	700	44.3%	32.0%	38.7%	320.95	212.6

Agricultural Chemical	Total Reported Applied (1,000 lbs)	Estimated Total Applied (lbs)	Active Ingredient Applied Indiana (lb)	Emission Factor (lb/ton)	Active Ingredient (%)	Inert Content (%)	VOC Content of Inert (%)	Herbicide Emissions (tons)	Inert Emissions (tons)
Subtotal	186,977	211,512,443	18,856,000					3,262.88	2,084.1
Grand Total		289,241,931	24,701,000					4,285.75	4237.77

Table 2-19 VOC Emissions from Pesticides

Agricultural Chemical	Total Reported Applied (1,000 lbs)	Estimated Total Applied (lbs)	Active Ingredient Applied Indiana (lb)	Emission Factor (lb/ton)	Active Ingredient (%)	Inert Content (%)	VOC Content of Inert (%)	Herbicide Emissions (tons)	Inert Emissions (tons)
Corn									
Insecticides									
Bifenthrin									
Bt (Bacillus thur.) 2/									
Carbofuran		0							
Chlorpyrifos	291	291,000	730,000	700	41.7%	58.3%	25.0%	127.75	127.57
Cyfluthrin	2	2,000							
Dimethoate		0							
Esfenvalerate		0							
Fonofos		0							
Fipronil	48	48,000							
Lambdacyhalothrin		0							
Methyl parathion		0							
Permethrin		0							
Phorate		0							

Agricultural Chemical	Total Reported Applied (1,000 lbs)	Estimated Total Applied (lbs)	Active Ingredient Applied Indiana (lb)	Emission Factor (lb/ton)	Active Ingredi ent (%)	Inert Content (%)	VOC Content of Inert (%)	Herbicide Emissions (tons)	Inert Emissions (tons)
Phostebupirim		0							
Tebupirimphos	47	47,000							
Tefluthrin	66	66,000	15,000	700	3.0%	97.0%	10.6%	2.63	25.65
Terbufos	0	0	544,000	1160	15.0%	85.0%	25.0%	157.76	385.33
Unclassified			177000	700	30.0%	70.0%	24.8%	30.98	51.32
			1,466,000					319.11	589.88

The first column in both tables contains information about the chemicals used from the U.S. Department of Agriculture³⁴. To estimate the amount of pesticides applied it was assumed that farmers in the unreported areas used pesticides to the same degree as those in the reporting states. In the second column the surveyed amount was divided by the percent of acreage reported with the result being an estimate of the pesticides applied to corn and soybeans for the entire nation.

The third column contains the amount of active ingredient applied to Indiana farm fields as reported by the Indiana Agricultural Statistics Service. The tables for the amount of pesticides in Indiana also contained the popular name brands for the pesticides used. The brand names were then used to retrieve material safety data sheets (MSDS) from the Crop Management Systems, Inc website³⁵. The MSDS's contained information on the amount of active ingredients, and the physical properties of the pesticide.

Columns with information about the emission factor of the pesticide and the percent of inert ingredient that is VOC were obtained from the Emission Inventory Improvement Program (EIIP)³⁶. EIIP documentation contained a vapor pressure for most of the active ingredients listed, and for the remaining the corresponding MSDS was used. A table in the EIIP document (Table 9.4-4) contained emission factors for the active ingredients based upon a range of vapor pressures. Table 9.4-3 of the EIIP document contained a list of the percent of VOC in the inert portion pesticide. By referencing the physical properties section of the MSDS, determinations of the formulation type of the pesticide were made. In some cases, the MSDS contained better information about the VOC content than the EIIP document, in those instances the information from the MSDS was used.

There are some problems in these calculations. First it is assumed that all of the VOCs in the inert portion evaporate. This is incorrect, some of these would be absorbed by the plants and soil, and there is some biodegradation. Assumptions on the amount of VOC's absorbed or degraded were foregone due to many of the pesticides MSDS's not containing information on the specific solvent used. Another shortfall is that the total amount of pesticides used does not match the sum of the pesticide reported. Since this was the case the most used emission factor for the pesticide was used. To find the percent of active and inert ingredients and the percent of inert solvent in the unclassified pesticides, a weighted average of the known percentage of active ingredients applied was used.

Another factor to consider in calculating the emission of VOCs from agricultural pesticide application is the amount of crop oil concentrate (COC) used. Crop oil concentrate is a common adjuvant for increasing the efficacy of an herbicide. It comes in two forms, nonionic and ionic. Ionic COC's are generally petroleum derivatives and nonionic are vegetable oils. To find the amount of COC's used in the state of Indiana a report on the marketability of soybean products was used³⁷. This report stated that the amount of COC used nationally is estimated to be 7 to 10 million gallons annually. The product of the ratio of Indiana to national

³⁴ Fertilizers and pesticides usage, Agricultural Statistics 2002, National Agricultural Statistics Service, U.S. Department of Agriculture (<http://www.usda.gov/nass/pubs/agr02/acro02.htm>)

³⁵ <http://www.cdms.net/manuf/manuf.asp?t=1>, May 2004

³⁶ Pesticides – Agricultural and Nonagricultural, Volume III, Chapter 9. Prepared by Eastern Research Group for the Area Source Committee Emission Inventory Improvement Program, June 2001. (http://www.epa.gov/ttn/chief/eiip/techreport/volume03/iii09_jun2001.pdf)

³⁷ Soybean Product Market Survey. Omni Tech International, Ltd. http://www.omnitechintl.com/soybean_product_market_study/index.html . April 16, 1998.

herbicide use and the 10 million gallons of COC used nationally was assumed to a good estimate of the amount used in Indiana. The density of the COC was assumed to be similar to that of distillate oil, 7.05 pounds per gallon.

Equation 2-32 VOC Emissions from Crop Oil Concentrate

$$10,000,000 \text{ gallons} \times 7.54\% \text{ Indiana use} \times \frac{7.05 \text{ lb}}{\text{gallon}} \times \frac{1 \text{ ton}}{2000 \text{ lb}}$$

$$2,657.54 \text{ tons VOC Emissions}$$

The total emissions from crop oil concentrates, pesticides, and their solvent carriers were added together and then divided by the total number of acres of corn and soybeans in Indiana. The result of this was a pound per acre emission factor that could be applied in each county in the state of Indiana to estimate VOC emissions from agricultural pesticide application. The following equations present how the emission factor was calculated and an example of how it was applied.

Equation 2-33 Emission Factor Calculation for Agricultural Pesticide Use

$$\frac{\text{Herbicide A.I.} + \text{Herbicide S.C.} + \text{COC} + \text{Insecticide A.I.} + \text{Insecticide S.C.}}{\text{Acres of Corn} + \text{Acres of Soybeans}}$$

$$\frac{3,361.40 + 4,921.72 + 2,657.54 + 319.11 + 589.88}{5,800,000 + 5,600,000}$$

$$\frac{2.08 \text{ lb}}{\text{acre}}$$

Equation 2-34 Agricultural Pesticide Emissions in Fountain County

$$(97,500 \text{ corn acreage} + 95,500 \text{ soybean acreage}) \times \frac{2.08 \text{ lb}}{\text{acre}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

$$200.72 \text{ tons VOC}$$

d) Petroleum Marketing

To calculate for each of the categories for Petroleum Marketing, the amount of fuel sold in Indiana was needed to estimate the emissions. This information was obtained from the Federal Highway Administration's 2002 Highway Statistics Report³⁸. According to the report, the amount of gas sold in Indiana for 2002 was 3,156,150,000 gallons. The amount of sales in each county was from the 1997 Economic Census³⁹. By dividing the amount of sales in each

³⁸ U.S. Department of Transportation, Federal Highway Administration, Highway Statistics 2002, Motor Fuel, (<http://www.fhwa.dot.gov/policy/ohim/hs02/mf21.htm>)

³⁹ U.S. Census Bureau, 1997 Economic Census, Retail Trade, (http://www.census.gov/epcd/ec97/in/IN000_44.HTM#N447)

county by statewide sales, a ratio was developed that allowed an apportionment of statewide gasoline consumption to a county level. The following equation shows how this was done.

Equation 2-35 Gasoline Allocation Calculation for Floyd County

$$\frac{\text{Sales in Floyd County}}{\text{Sales Statewide}} \times \# \text{ of Gallons sold statewide}$$

$$\frac{\$69,557,000}{\$5,275,609,000} \times 2,430,240,000$$

$$32,041,837 \text{ gallons sold in Floyd County}$$

i) Bulk Terminals

Source Classification Code: 2501050120

The Procedures Document⁴⁰ states that “Nationally, about 25% of all gasoline consumed goes through bulk plants...” Each county’s gasoline consumption was multiplied by 25% to estimate the amount of fuel being transferred through bulk terminals. To estimate the emissions the factor used was from “Gasoline Vapor and Benzene Emission Factors for a Typical Bulk Plant⁴¹. Table 6.16 of the emission document gives the emission factors for a typical plant.

Table 2-20 Typical Bulk Station Emission Factors

Source	Emission Factor (lb/1000) gal
Storage Tanks- Breathing Loss	5.0
Storage Tanks- Working Loss	
Filling	9.6
Emptying	3.8
Gasoline Loading Racks	11.9
(Vapor balance controlled)	(0.3)

⁴⁰ Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone, Volume I, Office of Air Quality Planning Standards, U.S. EPA, May 1991

⁴¹ Locating and Estimating Air Emissions from Sources of Benzene, Office of Air Quality Planning and Standards, U.S. EPA, March 2003. (http://www.epa.gov/ttn/chief/le/benzene/benz_c6a.pdf)

Total

30.3

Bulk Plants also have controls due to the Indiana Rule (326 IAC 8-4). It says that any source of this type that was new after January 1, 1980 is required to make sure that any transfer between a tank and transport uses a submerged pipe and vapor balance system. A control efficiency (CE) of 38%, a rule effectiveness (RE) of 80%, and rule penetration (RP) of 13% was applied. The rule effectiveness is based on U.S. EPA's default rule effectiveness. The following equations demonstrate how the emissions were estimated.

Equation 2-36 Floyd County Bulk Station Throughput

$$\text{Gallons sold county wide} \times 25\% = \text{Area Total}$$

$$32,041,837 \text{ gallons sold} \times 0.25 = 8,010,459 \text{ gallons or } 8,010.45 \text{ 1,000 gallons}$$

Equation 2-37 Estimated VOC from Bulk Terminals in Floyd County

$$\text{Throughput} \times \text{emission factor} \times (1 - (\text{CE} \times \text{RE} \times \text{RP})) \times \frac{1 \text{ ton}}{2000 \text{ lb}}$$

$$8,010.45 \text{ 1,000 gallons} \times 30.3 \times (1 - (0.38 \times 0.80 \times 0.13)) \times \frac{1 \text{ ton}}{2000 \text{ lb}}$$

$$91.84 \text{ tons}$$

ii) Portable Fuel Containers

SCC	Description
2501011010	Residential Portable Fuel Containers—Vapor Losses
2501011011	Residential Portable Fuel Containers - Permeation
2501011012	Residential Portable Fuel Containers - Diurnal
2501011015	Residential Portable Fuel Containers—Spillage
2501011016	Residential Portable Fuel Containers - Transport
2501012010	Commercial Portable Fuel Containers—Vapor Losses
2501012011	Commercial Portable Fuel Containers - Permeation
2501012012	Commercial Portable Fuel Containers - Diurnal
2501012015	Commercial Portable Fuel Containers—Spillage
2501012016	Commercial Portable Fuel Containers - Transport

Following a method developed by the California Environmental Protection Agency⁴² emissions were calculated for Commercial and Residential gas cans. The emissions estimated were permeation, diurnal, and transport. Both Spillage and Vapor losses are estimated in the nonroad emissions inventory by EPA models.

The following tables contain data used in the following estimates. These were compiled by the California Environmental Protection Agency. They surveyed residential and commercial populations to gather the data.

Table 2-21 Portable Fuel Container Survey Results

Residential Survey Results

Percentage of households with at least one gas can	46%
Number of gas cans per household	1.8
Percentage of plastic cans/metal cans	76% / 24%
Weighted average gas can capacity (gal)	2.34
Percentage of gas cans stored with fuel	70%
Weighted average stored fuel volume (% of capacity)	49%
Percentage of all gas cans that are plastic and stored open/closed	23% / 53%
Percentage of all gas cans that are metal and stored open/closed	11% / 13%
Percent of all cans stored open/closed	34% / 66%

Commercial Survey Results

Percentage of businesses with at least one gas can	80%
Number of gas cans per business	6.9
Percentage of plastic cans/metal cans	72% / 28%
Weighted average gas can capacity (gal)	3.43
Weighted average stored fuel volume (% of capacity)	49%

⁴² Public Meeting To Consider Approval Of California's Portable Gasoline-Container Emissions Inventory, California Environmental Protection Agency, Air Resources Board, Mobile Source Control Division, September 1999

Percentage of all gas cans that are plastic and stored open/closed	39% / 33%
Percentage of all gas cans that are metal and stored open/closed	10% / 18%
Percent of all cans stored open/closed	49% / 51%

The first step in estimating these emissions is developing a population of the number of fuel containers in the state for both the residential and commercial categories. Residential population is based upon the number of occupied households. Commercial population is based upon the number of identified businesses.

Equation 2-38 Residential Gas Can Population

$$POP_R = (N_R)(A)(Count_R)$$

$$POP_R = 2,615,834$$

where: POP_R = Statewide Residential Gas Can Population
 N_R = Number of Occupied-Housing Units
 A = Percentage of Households with Gas Cans - 46%
 $Count_R$ = Average Number of Residential-Gas Cans per Household - 1.8

Equation 2-39 Commercial Gas Can Population

$$POP_C = (N_C)(Count_C)$$

where: POP_C = Statewide Commercial-Gas-Can Population
 N_C = Number of Occupied Businesses
 $Count_C$ = Average Number of Gas Cans per Business (6.9)

Table 2-22 Commercial Gas Can Population

Category	# of Bus.	NAICS
Agricultural	158	115
Automotive Club and Towing Services	132	48841
Service Stations	3666	8111
Lawn and Garden Maintenance Services	194	81141
General Contractors	15824	23
Construction and Rental Yards	193	5324
Total # of Businesses	20167	
# of non-Landscaping Gas Cans	139,152	
Landscaping Services	1567	561730
# of Landscaping Gas Cans*	10,812	

Category	# of Bus.	NAICS
Total Commercial Gas Cans	149,965	
*Landscaping is separated due to use for the transport emissions estimate		

Permeable emissions are the result of molecules of the stored fuel saturating the material the container is made of, and then evaporating. The emission rates given in the documentation are 1.57g/gal-day for plastic and 0.06 g/gal-day for metal. The following equation must be performed separately for residential and commercial emissions. The percentage of cans stored in respect to material (see B below) is different for residential and commercial.

Equation 2-40 Permeable Gas Can Emissions Formula

$$HC_p = \Sigma\{(POP)(EF_p)(S)(B)(Size)(Level)\}$$

where: HC_p = Permeation Emissions in tons per day
 POP = Statewide Residential-Gas-Can Population
 EF_p = Appropriate Permeation-Emission Factor (Plastic = 1.57 and Metal = 0.06 g/gal-day)
 S = Percentage of Gas Cans Stored with Fuel (70%)
 B = Percentage of Cans Stored in Closed Condition with respect to Material (Residential: Plastic = 53%, Metal = 13%; Commercial: Plastic = 33%, Metal 18%)
 Size = Weighted Average Capacity of Residential-Gas Cans (Residential = 2.34 and Commercial = 3.43 gal.)
 Level = Weighted Average Amount of Stored Fuel (49%)

Equation 2-41 Residential Plastic Can Permeable Emissions

$$\left(2,165,911 \times 1.57 \times 70\% \times 53\% \times 2.34 \times 49\% \times \frac{1 \text{ ton}}{908,000 \text{ gram}} \right) \times \frac{365 \text{ days}}{\text{year}}$$

581.48 tons

Diurnal emissions are the result of evaporative emissions that can escape through any vent or nozzle. The estimate in this case is dependent upon whether the can is open or closed, metal or plastic, and residential or commercial.

Equation 2-42 Diurnal Gas Can Emissions Formula

$$HC_D = (POP)(S)(EF_D)(B)(Size)(Level)$$

where: HC_D = Diurnal Emissions (tpd) for Gas Cans with respect to Storage Condition (Open or Closed) and Material (Plastic or Metal)
 Pop = Statewide Residential-Gas-Can Population

S = Percentage of Gas-Can Population Stored with Fuel (70%)
 EF_D = Appropriate Diurnal-Emission Factor with respect to Storage Condition and Material (g/gal-day or g/day)
 B = Percentage of Gas-Can Population with respect to Storage Condition and Material
 Size = Weighted Average Capacity of Gas Cans (Residential = 2.34 and Commercial = 3.43 gal.)
 Level = Weighted Average Amount of Stored Fuel (49%)

Equation 2-43 Open Plastic Gas Can Diurnal Emissions

$$\left(2,165,911 \times 70\% \times 21.8 \times 23\% \times 0.49 \times \frac{1 \text{ ton}}{908,000 \text{ grams}} \right) \times \frac{365 \text{ days}}{\text{year}}$$

1497.36 tons

Transit-Spillage emissions occur during the transporting of fuel containers, not to be confused with spillage at the gas pump.

Equation 2-44 Transit-Spillage Gas Can Emissions Formula

$$HC_T = (POP)(S)(\text{Re fill})(EF_T)(B)$$

HC_T = Gas-Can-Transport-Spillage Emissions (tpd)
 Pop = Statewide Residential (or Commercial Lawn and Garden or Other Commercial) Gas Can Population
 S = Percentage of Gas Cans Stored with Fuel (70%)
 Refill = Average Number of Gas Cans Pump Refills per Day per Can (Residential, 0.0174; Commercial Lawn and Garden, 0.964, Other Commercial, 0.12 refill/day)
 EF_T = Transport-Emission Factor with respect to Storage Condition (g/refill)
 B = Percentage of Gas Cans with respect to Storage Condition and Material

Equation 2-45 Transport-Spillage Emissions from Residential Open Plastic Gas Cans

$$\left(2,165,911 \times 70\% \times 0.0174 \times 32.5 \times 23\% \times \frac{1 \text{ ton}}{908,000 \text{ grams}} \right) \times \frac{365 \text{ days}}{\text{year}}$$

79.27 tons

Category	Permeable	Diurnal	Transport Spillage	Total
Residential	586.93	2,764.57	278.16	3,629.65
Commercial	37.51	795.51	211.74	1,044.76
Total	624.44	3,560.08	489.90	4,674.41

iii) Service Station Tank Loading or Tank Truck Unloading (Stage 1)

Source Classification Codes: 2501060052 (uncontrolled), 2501060053 (controlled)

By dividing the amount of sales in a county by statewide sales, a ratio is developed which allows for the apportionment of statewide gasoline consumption to county level. Once the gallons for each county have been apportioned, the amount of balanced tanks is found. This is done by finding the number of tanks that were constructed after 1985 through 2002. This information was obtained from the Indiana Department of Environmental Management⁴³. In 2002, there were 10,147 tanks that were operating and out of that, 8,034 of those tanks were balanced. This would leave only 21% of the total consumed for each of the counties uncontrolled and 79% of the total consumed for each of the counties controlled. The controlled emission factor was applied only in those counties identified in 326 IAC 8-4 as requiring controls: Boone, Clark, Dearborn, Elkhart, Hamilton, Hancock, Harrison, Hendricks, Johnson, Lake, Marion, Morgan, Porter, Saint Joseph, and Shelby. The emission factors used for the stage 1 controlled and uncontrolled were found in the U.S. EPA EIIP document⁴⁴.

iv) Vehicle Fueling (Stage II) – Vapor Displacement

Source Classification Codes: 2501060101 (uncontrolled), 2501060102 (controlled)

Vapor displacement happens during vehicle refueling, displacement of tank vapors by incoming fuel. The emission factors were calculated by MOBILE6 by using input files that are included in Appendix A. The following table shows an example of how the emission factor for January and July for the Southern Counties were calculated and by using these two months, the other months are distributed. The average of all months is then used as the emission factor for the Southern Counties. This methodology is done also for the Northern Counties, Central Counties, Clark/Floyd, and Lake/Porter.

Table 2-23 Stage II January MOBILE6 Results for Southern Counties

VTTYPE	GM_MILE	MPG	% VMT	G/GAL	Month	Factor
1	0.0628	23.89	0.463793	0.322719	1	1.01
2	0.1058	18.77	0.070491	0.009868	2	1.14
3	0.1058	18.77	0.234672	0.109364	3	1.28
4	0.1486	14.31	0.071379	0.010834	4	1.41
5	0.1486	14.31	0.032825	0.002291	5	1.55
6	0.2152	9.88	0.028896	0.001775	6	1.69

⁴³ Underground Storage Tank data files, Office of Land Quality, Indiana Department of Environmental Management, March 2003 (<http://www.in.gov/idem/land/ust/ust.html>)

⁴⁴ Gasoline Marketing (Stage I and Stage II) Volume III: Chapter 11, Prepared by: Eastern Research Group, Inc., Prepared for: Area Sources Committee Emission Inventory Improvement Program, January 2001, U.S. EPA (http://www.epa.gov/ttn/chief/eiip/techreport/volume03/iii11_apr2001.pdf)

VTTYPE	GM_MILE	MPG	% VMT	G/GAL	Month	Factor
7	0.2342	9.08	0.001027	2.24E-06	7	1.82
8	0.2465	8.63	0.000522	5.8E-07	8	1.69
9	0.2719	7.82	0.001164	2.88E-06	9	1.55
10	0.2733	7.78	0.002489	1.32E-05	10	1.41
11	0.2972	7.15	0.001132	2.72E-06	11	1.28
12	0.3169	6.71	0.000004	3.4E-11	12	1.14
25	0.3421	6.22	0.000496	5.23E-07	Sum	16.97
				0.456873 g/gal	Average	1.41
				1.007222 lb/E3gal		

Table 2-24 Stage II July MOBILE6 Results for Southern Counties

VTTYPE	GM_MILE	MPG	% VMT	G/GAL
1	0.1144	23.9	0.456768	0.570447
2	0.1955	18.75	0.071404	0.018689
3	0.1955	18.75	0.237712	0.207133
4	0.2882	14.3	0.072838	0.021865
5	0.2882	14.3	0.033496	0.004624
6	0.4164	9.9	0.029201	0.003515
7	0.4529	9.1	0.001038	4.44E-06
8	0.4763	8.66	0.000509	1.07E-06
9	0.5264	7.83	0.00116	5.55E-06
10	0.5283	7.8	0.002482	2.54E-05
11	0.5749	7.17	0.001122	5.19E-06
12	0.6128	6.73	0.000004	6.6E-11
25	0.6629	6.22	0.000485	9.7E-07
				0.826316 g/gal
				1.821697 lb/E3gal

The following equation shows how one vehicle type was calculated for the Southern Counties. Once all the vehicle types are calculated then the sum of grams/gallon is converted to lb/gallon.

Equation 2-46 Stage II Emission Factor for Vehicle Type 1 for January

$$\begin{aligned}
 & \left(\frac{\text{Gram}}{\text{mile}} \times \% \text{ Miles Traveled} \right) \times \left(\frac{\text{Miles}}{\text{Gallon}} \times \% \text{ Miles Traveled} \right) \times \frac{0.022046 \text{ lb}}{\text{Gallon}} \\
 & (0.0628 \times 0.463793) \times (23.89 \times 0.463793) \times 0.022046 \\
 & \frac{0.0071146 \text{ lb}}{\text{gallon}}
 \end{aligned}$$

Equation 2-47 Stage II VOC Emissions for Ripley County

$$\begin{array}{l} \text{Throughput} \times \text{Emission Factor} \times \text{Conversion Factor} \\ 11,766.85 \text{ Thousand Gallons} \times \frac{1.41 \text{ lb}}{\text{Thousand Gallon}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} \\ 8.29 \text{ tons} \end{array}$$

v) Vehicle Fueling (Stage II) Spillage

Source Classification Code: 2501060103

Spillage happens at both the beginning and at the end of vehicle refueling. The emission factor 0.7 lb/1000 gallons of throughput used is from AP-42⁴⁵. The emission factor is applied to each county's estimated gasoline throughput. This is shown in the following equation.

Equation 2-48 Stage II Fuel Spillage in Delaware County

$$\begin{array}{l} \text{Throughput} \times \text{Emission Factor} \times \text{Conversion Factor} \\ 64982.37 \text{ Thousand Gallons} \times \frac{0.7 \text{ lb}}{\text{Thousand Gallon}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} \\ 2.27 \text{ tons} \end{array}$$

vi) Underground Tank Breathing

Source Classification Code: 2501060200

Emissions from underground tank breathing are from the result of the evaporation of gasoline and changes in the barometric pressure. The emission factor 1.0 lb/1000 gallons used is from AP-42⁴⁶.

Equation 2-49 Underground Tank Breathing for Bartholomew County

$$\begin{array}{l} \text{Throughput} \times \text{Emission Factor} \times \text{Conversion Factor} \\ 42,955.79 \text{ Thousand Gallons} \times \frac{1.0 \text{ lb}}{\text{Thousand Gallon}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} \\ 21.47 \text{ tons} \end{array}$$

⁴⁵ AP-42, Fifth Edition, Volume I, Chapter 5: Petroleum Industry, Transportation and Marketing of Petroleum Liquids, January 1995 (<http://www.epa.gov/ttn/chief/ap42/ch05/final/c05s02.pdf>)

⁴⁶ AP-42, Fifth Edition, Volume I, Chapter 5: Petroleum Industry, Transportation and Marketing of Petroleum Liquids, January 1995 (<http://www.epa.gov/ttn/chief/ap42/ch05/final/c05s02.pdf>)

vii) Tank Trucks in Transit

Source Classification Code: 2505030120

The guidance followed in estimating the emissions for tank trucks in transit was found in the U.S. EPA EIIP document⁴⁷. A national default activity rate was applied to the amount of gasoline sold in the county to estimate the amount of gasoline transported in that county. The default applied is 1.25 times the amount of gasoline sold in each county. A composite emission factor was created by adding together the transit loading and unloading to estimate the amount of emissions round trip. The emission factor used is 0.06 lb/1000 gallons transported found in the EIIP document.

Equation 2-50 Tank Trucks in Transit for Jefferson County

Throughput × Activity Adjustment × Emission Factor × Conversion Factor

$$14,066.20 \text{ Thousand Gallons} \times 1.25 \times \frac{0.06 \text{ lb}}{\text{Thousand Gallon}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} \\ 0.528 \text{ tons}$$

e) Waste Management Practices

i) Solid Waste Incineration

(1) Industrial Solid Waste Incineration

Source Classification Code: 2601010000

To estimate the emissions for on-site industrial solid waste incineration a default fuel-loading factor of 420 tons/ 1,000 manufacturing employees from U.S. EPA was used in the calculation and the amount of manufacturing employees from the U.S. Census Bureau⁴⁸.

Equation 2-51 Estimated Industrial Waste Incinerated in Howard County

$$16,021 \text{ Manufacturing Employees} \times \frac{420 \text{ Tons}}{1,000 \text{ Manufacturing Employees}} \\ 6,728 \text{ Tons Industrial Waste}$$

⁴⁷ Gasoline Marketing (Stage I and Stage II) Volume III: Chapter 11, Prepared by: Eastern Research Group, Inc., Prepared for: Area Sources Committee Emission Inventory Improvement Program, January 2001, U.S. EPA (http://www.epa.gov/ttn/chief/eiip/techreport/volume03/iii11_apr2001.pdf)

⁴⁸ County Business Patterns 2001, United States Department of Commerce, U.S. Census Bureau April 2003, (<http://censtats.census.gov/cgi-bin/cbpnaic/cbpsel.pl>)

Equation 2-52 Industrial Waste Incineration VOC for Howard County

Throughput × Emission Factor × Conversion Factor

$$6,728 \text{ tons} \times \frac{3 \text{ lb}}{\text{ton}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} \\ 10.092 \text{ tons}$$

(2) Commercial Solid Waste Incineration

Source Classification Code: 2601020000

To estimate the emissions for commercial solid waste incineration an estimate of the amount of waste incinerated was needed. A default factor of 0.65lb/person/day found in the U.S. EPA Municipal Solid Waste Report⁴⁹ and the population for each Indiana County from the U.S. Census Bureau⁵⁰ was used in this calculation. The Solid Waste Report based on 2001 data states that about 40% of waste incinerated is commercial solid waste.

Equation 2-53 Commercial Solid Waste Incinerated in Johnson County

$$121,604 \text{ Population} \times \frac{0.65 \text{ lb}}{\text{Person/Day}} \times \frac{365 \text{ days}}{\text{Year}} \times 40\% \text{ Incinerated} \times \frac{1 \text{ Ton}}{2,000 \text{ lb}} \\ 5,770.1 \text{ Tons of Waste}$$

Equation 2-54 Commercial Solid Waste Incineration VOC for Johnson County

Throughput × Emission Factor × Conversion Factor

$$5,770.1 \text{ tons} \times \frac{3 \text{ lb}}{\text{ton}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} \\ 8.655 \text{ tons}$$

(3) Residential Solid Waste Incineration

Source Classification Code: 2601030000

To estimate the emission for industrial solid waste incineration an estimate of the amount of waste incinerated was needed. A default factor of 0.65 lb/person/day found in the

⁴⁹ Municipal Solid Waste in the United States: 2001 Facts and Figures, Office of Solid Waste and Emergency Response, U.S. EPA, October 2003 (<http://www.epa.gov/garbage/pubs/msw2001.pdf>)

⁵⁰ Population Estimates 2002, Population Division, U.S. Census Bureau, April 2003 (<http://eire.census.gov/popest/data/counties/tables/CO-EST2002/CO-EST2002-01-18.php>)

U.S. EPA Municipal Solid Waste Report⁵¹ and the population for each Indiana County from the U.S. Census Bureau was used in this calculation. The Solid Waste Report based on 2001 data states that about 60% of waste incinerated is residential solid waste.

Equation 2-55 Residential Solid Waste Incinerated in Johnson County

$$121,604 \text{ Population} \times \frac{0.65 \text{ lb}}{\text{Person/Day}} \times \frac{365 \text{ days}}{\text{Year}} \times 60\% \text{ Incinerated} \times \frac{1 \text{ Ton}}{2,000 \text{ lb}}$$

8,655.16 Tons of Waste

Equation 2-56 Residential Solid Waste Incineration VOC Emissions

Throughput \times Emission Factor \times Conversion Factor

$$8,655.16 \text{ tons} \times \frac{3 \text{ lb}}{\text{ton}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

12.98 tons

ii) Residential Open Burning

(1) Leaf and Brush Burning

Source Classification Code: 2610000100 and 2610000400

To calculate for leaf and brush burning, a per capita factor of 0.54lb/person/day was used. This was found in EPA's Solid Waste Report⁵². Of the total generated only 25% was assumed leaves and 25 % brush. Of the total waste generated only 28% was assumed to burn. Once all these factors are taken into consideration, the per capita factor is 0.0068985 ton/person/year.

Equation 2-57 Leaf Waste Burned in Dearborn County

$$31,541 \text{ Population} \times \frac{0.0068985 \text{ ton}}{\text{Person/year}}$$

217.586 Tons of Waste

The amount of waste generated for each county was then adjusted to account for the percentage of forests in each county. The percent of forests for each county was found in a

⁵¹ Municipal Solid Waste in the United States: 2001 Facts and Figures, Office of Solid Waste and Emergency Response, U.S. EPA, October 2003 (<http://www.epa.gov/garbage/pubs/msw2001.pdf>)

⁵² Municipal Solid Waste in The United States: Facts and Figures, Office of Solid Waste and Emergency Response, U.S. EPA, October 2003, (<http://www.epa.gov/epaoswer/non-hw/muncpl/pubs/msw2001.pdf>)

report done in 2000 based on 1998 data by the Department of Agriculture⁵³. The following table shows the ranges that are used to adjust the amount of yard waste that is generated per county.

Table 2-25 Forested Acres Adjustment Factor

Percent Forested Acres per County	Adjusted for Yard Waste Generated
< 10%	0% generated
>= 10%, and < 50%	50% generated
>= 50%	100% generated

Equation 2-58 Adjusted Leaf Waste Burned in Dearborn County

$$50\% \text{ Forested} \times 217.586 \text{ Tons} = 108.793 \text{ tons of leaves}$$

The amount of leaves burned and amount of brush burned for each county is then multiplied by the emission factors that are found in National Emission Inventory documentation done by EPA.

Table 2-26 Leaf and Brush Burning VOC Emissions for Dearborn County

SCC	Description	Emission Factor	Waste Generated	VOC (Tons/Year)
2610000100	Leaves Burned	28 lbs/ton	108.793	1.523
2610000400	Brush Burned	19 lbs/ton	108.793	1.033

(2) Residential Waste Burning

Source Classification Code: 2610030000

The calculation for residential waste is calculated by using a 2001 fuel-loading factor of 4.41lb/person/day of the total amount generated subtracting out 0.99 that is recycled and 0.32 that is composted. This information was from a Solid Waste Report from EPA⁵⁴. The remainder is 3.10 lb/person/day that is actual waste discarded. The amount of combustibles is

⁵³ Forest of Indiana: A 1998 Overview, Forest Service, United States Department of Agriculture, September 2000, (<http://www.na.fs.fed.us/spfo/pubs/misc/in98forests/webversion/index.htm>)

⁵⁴ Municipal Solid Waste in The United States: Facts and Figures, Office of Solid Waste and Emergency Response, U.S. EPA, October 2003, (<http://www.epa.gov/epaoswer/non-hw/muncpl/pubs/msw2001.pdf>)

then subtracted out leaving the total waste available for burning 1.86 lbs/person/day. An e-mail from LADCO suggests that 28% is total amount of solid waste burned in rural areas and 49% is actually combusted leaving the default fuel loading 0.0465 tons/person/year.

Equation 2-59 Residential Waste Incineration Fuel Loading Calculation

$$\frac{4.41 \text{ lb created}}{\text{person/day}} - \frac{0.99 \text{ lb recycled}}{\text{person/day}} - \frac{0.32 \text{ lb composted}}{\text{person/day}} = \frac{3.10 \text{ lb discarded}}{\text{person/day}}$$

$$\frac{3.10 \text{ lb discarded}}{\text{person/day}} - \frac{0.186 \text{ lb glass}}{\text{person/day}} - \frac{0.217 \text{ lb metal}}{\text{person/day}} - \frac{0.248 \text{ lb yard trim min gs}}{\text{person/day}} - \frac{0.589 \text{ lb other}}{\text{person/day}}$$

$$\frac{1.86 \text{ lb Waste Available for Burning}}{\text{person/day}}$$

$$\frac{1.86 \text{ lb Waste Available for Burning}}{\text{person/day}} \times 28\% \times 49\% \times 365 \times \frac{1 \text{ ton}}{2,000 \text{ lb}}$$

$$\frac{0.0465 \text{ ton Waste Burned}}{\text{person/year}}$$

The default fuel-loading factor of 0.0465 ton/person/year is then applied to the rural population for each county. The rural population number was from the U.S. Census Bureau⁵⁵. The amount of residential waste is then calculated by the emission factors found in the EIIP document⁵⁶.

Equation 2-60 Estimated Residential Waste Burned in Franklin County

$$\text{Population} \times \text{Fuel Loading Factor} = \text{Tons Waste}$$

$$16,759 \text{ Population} \times \frac{0.0465 \text{ Ton}}{\text{Person/Year}} = 780.5 \text{ Tons}$$

Equation 2-61 Residential Open Burning NOx Emissions for Franklin County

$$\text{Throughput} \times \text{Emission Factor} \times \text{Conversion Factor} \times (1 - (\text{CE} \times \text{RE} \times \text{RP}))$$

$$780.5 \text{ tons} \times \frac{6 \text{ lb}}{\text{ton}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} \times (1 - (80\% \times 80\% \times 100\%))$$

$$0.84 \text{ tons}$$

⁵⁵ Population Estimates, Population Division, U.S. Census Bureau, July 2003

(<http://eire.census.gov/popest/data/cities/subtab10.php>)

⁵⁶ Open Burning: Chapter 16 , Emission Inventory Improvement Program Volume III, U.S. EPA, April 2001, http://www.epa.gov/ttn/chiep/eiip/techreport/volume03/iii16_apr2001.pdf

iii) Municipal Solid Waste Landfills

Source Classification Code: 2620030000

Emissions for landfills are included in the point source inventory.

iv) Public Owned Treatment Works (POTW's)

Source Classification Code: 2630020000

The emissions for POTW's were calculated by finding the amount of annual flow provided by the IDEM Office of Water Quality. They provided a report based on monthly flow from POTW's. From this report, the annual flow for each county was calculated.

Equation 2-62 VOC Emissions from POTW's in Marion County

$$\begin{aligned} & \text{Throughput} \times \text{Emission Factor} \times \text{Conversion Factor} \\ & 65,991.928 \text{ Million Gallon} \times \frac{8.9 \text{ lb}}{\text{Million Gallon}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} \\ & 293.66 \text{ tons} \end{aligned}$$

v) Treatment, Storage and Disposal Facilities

Source Classification Code: 2640000004

To calculate the emissions for Treatment, Storage and Disposal Facilities (TSDF's) the amount of treatment facilities and the amount of ignitable waste was provided by the IDEM Office of Land Quality. Once the amount of ignitable waste is collected then point source waste is subtracted leaving the amount of area source ignitable waste. The emission factors used in calculating the TSDF's emissions are from AP-42⁵⁷.

Table 2-27 Emission Factors for Treatment, Storage and Disposal Facilities

Emission Source	Emission Factor in AP-42 (lb VOC/Ton)	Emission Factor Used (lb VOC/Ton)
Storage Tank Vent	0.004-0.09	0.09
Spillage (filling)	0.20	0.20

⁵⁷ Waste Solvent Reclamation Table 4.7-1, Chapter 4: Evaporation Loss Sources, AP-42, Fifth Edition, Volume 1, February 1980 (<http://www.epa.gov/ttn/chief/ap42/ch04/final/c4s07.pdf>)

Loading (filling)	0.00024-1.42	1.42
Spillage (emptying)	0.20	0.20
Loading (emptying)	0.00024-1.42	1.42
Combined Emission Factor		3.33

Table 2-28 Estimated VOC Emissions from TSDFs in Marion County

Throughput \times Emission Factor \times Conversion Factor $\times (1 - (CE \times RE \times RP))$

$$5,818.27 \text{ tons} \times \frac{3.3 \text{ lb}}{\text{ton}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} \times (1 - (95\% \times 80\% \times 80\%))$$

2.32 tons

f) Miscellaneous Area Sources

i) Fugitive Dust from Agricultural Tilling

Source Classification Code: 2801000003

To estimate the emissions for fugitive dust from agricultural tilling the county silt content needs to be calculated. This is done by finding the weighted average silt content by soil types. The different types of soil and silt percentages were found in the United States Department of Agriculture⁵⁸.

Equation 2-63 Weighted Silt Content

$$\sum \left[\frac{\text{Acres of Soil Type}}{\text{Total Acres}} \times \% \text{ Silt content of Soil Type} \right] = \text{Weighted \% Silt Content}$$

Table 2-29 Total % of Silt for Each Soil Type for Adams County

Total Acres = 217,531

Soil Types	Total Acres for Each Soil Type	% of Silt Content for Soil Type	% of Total Silt for Adams County
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⁵⁸ United States Department of Agriculture, Natural Resources Conservation Center , November 7, 2003 (http://efotg.nrcs.usda.gov/efotg_locator.aspx?map=IN)

Pm	79,545	45%	16%
BcA	51,031	58%	14%
BcB	42,250	58%	11%
GoB	12,550	53%	3%
Na	4,410	61%	2%
Sc	4,310	47%	1%
Mh	4,210	55%	1%
Total % of Weighted Silt Content			48%

Once the total percentage of weighted silt content is calculated the amount of acres for each crop type in Indiana were used. The total acreage for both corn and soybeans for Indiana was obtained from the Indiana Agricultural Statistics Service⁵⁹. Once the total of acres for corn and soybeans were found, the percent for no-till and tilled were calculated by using the map based on 2000 data for corn found at the Conservation Technology Information Center⁶⁰ and soybeans found at the Conservation Technology Information Center⁶¹. The percentage was multiplied by the amount of acres times a mid-point for both no-till and till for each county.

Equation 2-64 Tillage Estimates for Corn in Adams County

$$66,000 \text{ Acres Corn} \times 6.5\% \text{ Using Conservation Tillage} = 4,290$$

$$66,000 \text{ Acres Corn} \times 93.5\% \text{ Using Conventional Tillage} = 61,710$$

Equation 2-65 Tillage Estimates for Soybeans in Adams County

$$89,000 \text{ Acres Corn} \times 56.5\% \text{ Using Conservation Tillage} = 50,285$$

$$89,000 \text{ Acres Corn} \times 43.5\% \text{ Using Conventional Tillage} = 38,715$$

⁵⁹ United States Department of Agriculture, National Agricultural Statistics Service, Indiana Agricultural Statistics Service, November 7, 2003 (<http://www.nass.usda.gov/in/cntest/cntytest.htm>)

⁶⁰ Conservation Technology Information Center, June 10, 2002
(http://www.ctic.purdue.edu/CTIC/BuffersProject/IN/County/NT_CRN_IN.gif)

⁶¹ Conservation Technology Information Center, June 10, 2002
(http://www.ctic.purdue.edu/CTIC/BuffersProject/IN/County/NT_SOY_IN.gif)

To calculate the emissions for PM for both conservation and conventional tillage and emission factor supplied by the EIIP document⁶² were used. Also used in the calculation is the number of tillings for each crop type and this information was supplied by the Mid-Atlantic Regional Air Management Association⁶³.

Equation 2-66 Emissions from Conservation Tillage of Corn in Adams County

$$\begin{aligned} & (\text{Silt Content})^{0.6} \times \text{Number of Tillings} \times \text{Acreage} \times \text{emission factor} \\ & (48)^{0.6} \times 2 \times 4,290 \times 4.8 \\ & 210 \text{ tons of Total Particulate Matter} \\ & \text{PM}_{10} = \text{Total} \times \text{Size Distribution Multiplier} \\ & 210 \times 0.21 \\ & 44 \text{ tons PM}_{10} \\ & \text{PM}_{2.5} = \text{Total} \times \text{Size Distribution Multiplier} \\ & 210 \times 0.042 \\ & 9 \text{ tons PM}_{2.5} \end{aligned}$$

Equation 2-67 Emissions from Conventional Tillage of Corn in Adams County

$$\begin{aligned} & (\text{Silt Content})^{0.6} \times \text{Number of Tillings} \times \text{Acreage} \times \text{emission factor} \\ & (48)^{0.6} \times 6 \times 61,710 \times 4.8 \\ & 9,066 \text{ tons of Total Particulate Matter} \\ & \text{PM}_{10} = \text{Total} \times \text{Size Distribution Multiplier} \\ & 9,066 \times 0.21 \\ & 1,904 \text{ tons PM}_{10} \\ & \text{PM}_{2.5} = \text{Total} \times \text{Size Distribution Multiplier} \\ & 9,066 \times 0.042 \\ & 380 \text{ tons PM}_{2.5} \end{aligned}$$

⁶² Emission Inventory Improvement Program, Volume IX, U.S. Environmental Protection Agency, February 11, 2003 (<http://www.epa.gov/ttn/chief/eiip/techreport/volume09/agtilling.pdf>)

⁶³ Mid-Atlantic Regional Air Management Association, Agriculture – Crops - Tilling Area Source Category Calculation Methodology Sheet, September 2003 (http://www.marama.org/visibility/Calculation_Sheets/Ag_Tilling.pdf)

Equation 2-68 Emissions from Conservation Tillage of Soybeans in Adams County

$$\begin{aligned} & (\text{Silt Content})^{0.6} \times \text{Number of Tillings} \times \text{Acreage} \times \text{emission factor} \\ & (48)^{0.6} \times 1 \times 50,285 \times 4.8 \\ & 1,231 \text{ tons of Total Particulate Matter} \\ & \text{PM}_{10} = \text{Total} \times \text{Size Distribution Multiplier} \\ & 1,231 \times 0.21 \\ & 259 \text{ tons PM}_{10} \\ & \text{PM}_{2.5} = \text{Total} \times \text{Size Distribution Multiplier} \\ & 1,231 \times 0.042 \\ & 52 \text{ tons PM}_{2.5} \end{aligned}$$

Equation 2-69 Emissions from Conventional Tillage of Soybeans in Adams County

$$\begin{aligned} & (\text{Silt Content})^{0.6} \times \text{Number of Tillings} \times \text{Acreage} \times \text{emission factor} \\ & (48)^{0.6} \times 6 \times 38,715 \times 4.8 \\ & 5,688 \text{ tons of Total Particulate Matter} \\ & \text{PM}_{10} = \text{Total} \times \text{Size Distribution Multiplier} \\ & 5,688 \times 0.21 \\ & 1,194 \text{ tons PM}_{10} \\ & \text{PM}_{2.5} = \text{Total} \times \text{Size Distribution Multiplier} \\ & 5,688 \times 0.042 \\ & 238 \text{ tons PM}_{2.5} \end{aligned}$$

3) Mobile Sources

a) Onroad

i) Lake and Porter Counties

Lake and Porter County emissions are provided by the Northwest Indiana Regional Planning Commission

ii) Remaining Counties

The inventory was obtained from the EPA generated National Emissions Inventory.

b) Nonroad

i) National Mobile Inventory Model (NMIM)

In coordination with LADCO various updates were made to the default population and parameter files within the NMIM model. The model was then run to get the emissions for the various lengths of times. To see the work done on the inputs please see the appendices.

ii) Commercial Marine and Railroad Categories

These categories are not addressed within the NMIM. They were estimated by contractor through LADCO. To review the methodologies please refer to the appendices.

iii) Aircraft

Emissions from this category were taken directly from the National Emissions Inventory.

4) Biogenic Emissions

Biogenic emissions were taken directly from the National Emissions Inventory.

5) Summary Tables

a) Statewide Annual Emissions

All emissions in this section are in Tons per year.

i) Totals

Table 5-1 Statewide Total Annual Emissions

Sector	CO	NH3	NOX	PM10-PRI	PM25-PRI	SO2	VOC
AREA	59,673	111,963	29,710	613,650	122,587	60,955	133,327
BIOGENIC	51,088	99,088	21,940				342,014
NONROAD	520,163	103	106,089	7,587	6,948	9,126	51,825
ON-ROAD	1,765,610	14,005	212,033	5,814	4,346	9,767	126,658
POINT	380,058	3,643	367,856	37,175	17,938	934,312	57,949
Totals	2,776,592	228,802	737,629	664,226	151,819	1,014,160	711,774

ii) Point Sources

Table 5-2 Annual Point Source Emissions

FIPS	State ID	Facility Name	CO	NOX	VOC
18001	00005	CENTRAL SOYA COMPANY INC	128.50	277.64	469.59
18001	00015	GILPIN IRONWORKS INC.			62.90
18001	00022	ELKHART PRODUCTS CORP	0.29	0.34	0.02
18001	00023	BING ASSEMBLY SYSTEMS, LLC	2.70	3.77	101.95
18001	00025	FLEETWOOD MOTOR HOMES OF AMERICA-OLD		0.49	49.81

FIPS	State ID	Facility Name	CO	NOX	VOC
18001	00031	THUNDERBIRD PRODUCTS, INC.			100.81
18001	00043	GOLD SHIELD OF INDIANA, INC.			247.10
18001	00049	ALL AMERICAN HOMES OF INDIANA, LLC			8.04
18003	00003	DANA TORQUE-TRACTION MANUF. TECH. INC	20.48	36.16	6.62
18003	00007	FORT WAYNE FOUNDRY-LIMA ROAD DIVISION	3.28	3.90	8.31
18003	00008	UNIROYAL GOODRICH TIRE MFG.	38.73	114.79	54.18
18003	00013	HELPS DODGE MAGNET WIRE COMPANY	18.71	22.27	130.89
18003	00014	REA MAGNET WIRE CO, INC	4.16	4.96	39.94
18003	00017	TOKHEIM CORPORATION	2.23	2.66	1.14
18003	00031	GE INDUSTRIAL SYSTEMS (GEIS)	8.36	9.46	61.33
18003	00032	MTI INSULATED PRODUCTS, INC.	0.21	0.25	8.94
18003	00036	GENERAL MOTORS - FORT WAYNE ASSEMBLY	62.87	88.88	1,568.80
18003	00038	GRABILL CABINET COMPANY	0.09	0.40	38.94
18003	00045	PEPL - EDGERTON STATION	59.96	812.84	24.51
18003	00046	LINCOLN FOODSERVICE PRODUCTS, INC.	2.05	2.44	95.46
18003	00057	OMNISOURCE CORPORATION	1.34	1.87	1.19
18003	00059	MERIDIAN AUTOMOTIVE SYSTEMS 1	6.10	7.31	167.31
18003	00064	KARL SCHMIDT UNISIA, INC.	0.73	2.55	10.89
18003	00069	TETRA PAK MATERIALS LP	0.42	0.51	14.58
18003	00070	FORT WAYNE FOUNDRY-PONTIAC DIVISION	8.54	10.29	47.38
18003	00071	FORT WAYNE POOLS, INC.			19.42
18003	00072	PLASTIC COMPOSITES CORPORATION	0.10	0.12	12.37
18003	00169	WIELAND FURNITURE	0.06	0.28	12.33
18003	00177	HARRIS KAYOT INC.			11.12
18003	00196	AVERY DENNISON-FASSON ROLL DIV.	3.24	9.41	56.53
18003	00198	WARD CORPORATION	1.15	2.28	3.72
18003	00205	ELITE ENTERPRISES*			103.39
18003	00224	OTTENWELLER COMPANY, INC.	0.56	0.67	13.59
18003	00225	FOAMEX, L.P.	21.86	1.63	104.86
18003	00232	POLAR KING INTERNATIONAL			12.79
18003	00249	MASTER SPAS, INC.			72.33
18003	00257	MCBETH ROAD LANDFILL	41.01	7.54	9.18
18003	00269	ESSEX GROUP INC; FORT WAYNE & CHEM. PROC	6.92	11.88	68.64
18003	00272	PARKVIEW MEMORIAL HOSPITAL	4.99	11.68	2.25
18003	00275	PRECISION PRODUCTS GROUP, INC.	0.08	0.09	1.42
18003	00284	GE SPECIALTY INDUSTRIAL SYSTEMS	6.47	2.68	25.44
18003	00286	SUPERIOR ALUMINUM ALLOYS	16.35	23.79	13.07
18003	00291	UNITED REFUSE COMPANY, INC.			3.43
18003	00302	FORT WAYNE LIQUID COATINGS, INC	0.02	0.02	0.10
18003	03212	WAYNE ASPHALT & CONST	31.96	30.28	23.55
18003	05204	BUNN EXCAVATING, INC.	0.68	1.13	0.33
18005	00002	CUMMINS ENGINE CO #5	21.86	167.69	6.70
18005	00006	GOLDEN CASTING CORPORATION	665.73	3.19	107.23
18005	00008	ARVINMERITOR, INC., 17TH STREET PLANT	6.50	7.74	27.24
18005	00015	CUMMINS, INC. (COLUMBUS ENGINE PLANT)	55.55	231.54	41.76
18005	00040	TOYOTA IEM, INC.	3.07	3.66	32.74
18005	00042	ENKEI AMERICA, INC.	6.91	12.68	13.40
18005	00047	CUMMINS MIDRANGE ENGINE PLANT - COLUMBUS	8.78	31.27	22.15

FIPS	State ID	Facility Name	CO	NOX	VOC
18005	00048	RIGHTWAY FASTENERS INC	0.88	1.04	0.06
18005	00066	NTN DRIVESHAFT, INC.	4.28	5.10	21.88
18005	00067	DSE, INC. DBA SCREEN TECH DESIGNS, INC.			7.84
18005	00068	VENTRA CORPORATION	0.42	0.50	5.19
18005	00080	ARVINMERITOR, INC., TECHNICAL CENTER	22.61	7.01	8.48
18005	00086	BARTHOLOMEW CO. LANDFILL	0.34		1.56
18005	00087	MACTAC			27.77
18007	00010	SMURFIT STONE CONTAINER CORPORATION			1.78
18007	00014	T G C - AMBIA STATION	4.31	43.09	3.76
18009	00002	BRC RUBBER & PLASTICS, INC.- MONTPELIER	0.75	0.90	23.19
18009	00004	3 M CO. HARTFORD CITY	8.77	11.15	68.16
18009	00008	VENTURE INDUSTRIES (HC)	1.39	1.65	12.41
18009	00018	KEY PLASTICS L.L.C.	0.57	2.87	23.10
18009	00023	INDIANA VENEER PRODUCT DIV. OF HARRIS-TA	31.01	11.37	10.46
18011	00004	MARATHON ASHLAND PIPE LINE - LEBANON STA			6.77
18011	00037	HENDRICKSON TRAILER SUSPENSION SYSTEMS			1.53
18015	00011	GLOBE VALVE CORP	1.98	2.35	4.64
18015	00021	PETERS REVINGTON FURNITURE			377.80
18017	00004	LOGANSPOUT STATE HOSPITAL	5.34	3.75	0.35
18017	00005	ESSROC CEMENT CORP.	1,916.74	1,711.72	68.66
18017	00006	LOGANSPOUT MUNICIPAL LIGHT & POWER	254.26	560.09	3.61
18017	00014	TRELLEBORG AUTOMOTIVE	0.25	0.30	160.96
18017	00021	CARLISLE INDUSTRIAL BRAKE AND FRICTION	1.36	1.62	72.26
18017	00027	TEXTRON FASTENING SYSTEMS, PSD			25.00
18017	00028	COLE HARDWOOD	11.85	4.90	0.72
18017	00033	TRANSCO RAILWAY PRODUCTS, INC.			5.00
18017	00034	TYSON FRESH MEATS, INC.	23.13	27.52	8.59
18017	00035	OAK RIDGE RECYCLING & DISPOSAL FACILITY	6.00	1.58	2.31
18019	00002	FLEXCEL - BORDEN	0.59	3.39	114.57
18019	00003	COLGATE-PALMOLIVE	11.76	14.00	16.22
18019	00006	JEFFBOAT			77.90
18019	00007	KITCHEN KOMPACT INC			537.40
18019	00008	ESSROC CEMENT CORP.	1,520.51	1,528.25	58.71
18019	00009	INDIANA ARMY AMMUNITION PLANT	0.10	0.12	0.01
18019	00012	MARATHON ASHLAND PET., CLARKSVILLE TERM.			32.88
18019	00015	ALTEC, L.L.C.	2.36	2.81	23.54
18019	00016	HAAS CABINET CO. INC.			148.80
18019	00018	THE PQ CORPORATION	10.60	88.47	3.17
18019	00019	HORIZON TERRA, INC.			11.25
18019	00041	ADPLEX-RHODES, INC.	0.02	4.70	20.99
18019	00043	CLARK MEMORIAL HOSPITAL	1.82	2.19	0.12
18019	00046	GEORGE PFAUS SONS COMPANY, INC.	2.58	3.07	0.17
18019	00049	APOLLO AMERICA CORP.	1.12	1.34	0.07
18019	00050	THE DALLAS GROUP OF AMERICA	2.45	2.91	0.16
18019	00054	VOSS INDUSTRIES DBA PGP CORPORATION	3.29	3.92	0.22
18019	00071	KOETTER WOODWORKING, INC.			19.00
18019	00075	G.F. MUNICH WELDING			5.41
18019	00079	KOETTER WOODWORKING INC.	10.18	6.78	2.78

FIPS	State ID	Facility Name	CO	NOX	VOC
18019	00080	ORICA USA INC.	0.18	0.88	0.01
18019	00088	CARMAN INDUSTRIES INC.			0.64
18019	00094	INDIANA AMERICAN WATER CO., INC.	0.06	0.27	0.01
18019	00095	INDIANA AMERICAN WATER CO., INC.	0.02	0.07	0.00
18019	00097	CLARK-FLOYD LANDFILL			1.60
18019	00103	D.A. INC.			16.99
18019	00104	TANCO CLARK MARITIME, L.L.C.	0.41	0.48	0.03
18019	00105	JEFFERSON YACHTS			3.65
18019	01332	RIETH-RILEY1332 PORTABLE CONCRETE PLANT	1.48	6.90	0.37
18019	03109	SELLERSBURG STONE CO.	12.02	6.24	10.60
18019	03321	ASPHALT SUPPLY CO., INC.	0.84	9.93	0.05
18019	05191	FORMER DAIRY MART STORES #173			0.01
18021	00008	GREAT DANE TRAILERS			68.41
18023	00011	ADM FRANKFORT	34.79	41.42	298.28
18023	00020	FRITO-LAY, INC.	52.48	105.05	1.27
18023	00021	THE KAY COMPANY, INC.			51.63
18023	00024	DONALDSON COMPANY, INC.			39.73
18023	00026	SONOCO CRELLIN			42.16
18027	00006	RESCAR INDUSTRIES, INC.			0.74
18027	00046	GRAIN PROCESSING CORPORATION	61.80	82.68	169.44
18027	03270	ROGERS GROUP,INC.-WASHINGTON ASPHALT	1.37	0.10	0.59
18029	00001	AURORA CASKET CO INC	2.69	3.20	316.61
18029	00002	AMERICAN ELECTRIC POWER-TANNERS CREEK	631.31	17,750.69	108.64
18029	00005	PERNOD RICARD USA	16.37	507.42	365.27
18029	00007	ANCHOR GLASS CONTAINER CORPORATION	18.34	520.90	11.08
18029	00008	TEXAS GAS TRANSMISSION - DILLSBORO	499.15	485.45	20.44
18029	00011	AURORA CASKET CO-VANGUARD PLT	0.92	1.10	76.59
18029	00014	TRANS AGG,INC. DBA GIBBCO, INC.	0.78	0.92	0.05
18029	03187	PAUL H. ROHE	0.25	1.01	0.01
18029	03326	DAVE O MARA CONTRACTOR PLANT 2	0.61	2.92	2.05
18031	00001	PRINTPACK INC.	4.33	5.16	577.50
18031	00014	VALEO, INC. ENGINE COOLING AUTO. DIV.			30.30
18031	00023	DECATUR HILLS, INC.	27.02	1.44	0.33
18031	03141	HOT MIX INC.	0.26	1.04	0.01
18033	00002	AUBURN FOUNDRY PLANT 1	298.53	31.42	95.85
18033	00013	COOPER TIRE & RUBBER CO., ENG.PROD.DIV	3.91	4.66	268.53
18033	00017	ASHLEY INDUSTRIAL MOLDING, INC.	3.30	3.93	104.35
18033	00019	THERMA-TRU CORPORATION	0.84	1.00	46.37
18033	00022	GUARDIAN INDUSTRIES	1.11	1.31	62.50
18033	00023	RIEKE PACKAGING SYSTEMS			63.71
18033	00027	NUCOR VULCRAFT GROUP, ST. JOE DIVISION			131.90
18033	00040	FLEETWOOD HOMES OF INDIANA, INC. #55			6.20
18033	00042	AUBURN FOUNDRY PLANT 2		0.46	36.67
18033	00043	STEEL DYNAMICS, INC.	559.42	570.22	81.87
18033	00044	DURA AUTOMOTIVE SYSTEMS, BUTLER JACK OPS			33.30
18033	00046	PARAGON PLASTICS, L.L.C.			0.13
18033	00047	FOAMEX L.P.	5.72	3.42	14.56
18033	00055	API CONSTRUCTION CORP.	1.20	1.42	1.75

FIPS	State ID	Facility Name	CO	NOX	VOC
18033	00072	NEW MILLENNIUM BUILDING SYSTEMS, LLC			147.76
18035	00002	BALL STATE UNIV	88.93	111.41	1.48
18035	00009	JEFFERSON SMURFIT CORPORATION	6.72	8.00	193.36
18035	00015	MANUAL TRANSMISSIONS OF MUNCIE LLC	24.80	32.90	62.93
18035	00020	BORGWARNER DTP INC.	46.19	15.77	25.70
18035	00041	ROCK-TENN COMPANY	15.33	18.25	3.80
18035	00046	ARROWHEAD PLASTIC ENGINEERING, INC.			12.87
18037	00002	JASPER MUNICIPAL ELECTRIC UTILITY	106.47	234.27	1.07
18037	00005	JASPER CHAIR CO	3.22	1.00	36.18
18037	00006	JASPER CORPORATION			24.30
18037	00007	JASPER DESK COMPANY, INC.	1.68	0.73	32.59
18037	00010	JASPER SEATING CO	3.05	0.70	135.20
18037	00012	INWOOD OFFICE FURNITURE			39.40
18037	00015	MASTERBRAND CABINETS PLANT #2 & #3A	0.04	0.04	221.30
18037	00016	DMI FURNITURE	1.19	0.21	62.72
18037	00017	JASPER SEATING COMPANY - FERDINAND			26.76
18037	00023	DUBOIS WOOD PRODUCTS, INC	2.48	1.77	33.36
18037	00028	INDIANA DESK-DUBOIS	0.50	0.60	51.43
18037	00031	ANR PIPELINE CELESTINE STATION	34.20	579.25	37.70
18037	00048	F-JASPER 11TH AVE	9.05	1.63	63.84
18037	00051	MASTERBRAND CABINETS, INC. PLANT 4/22	0.30	0.35	549.19
18037	00052	MASTERBRAND PLANT #3	0.10	0.12	218.21
18037	00058	DMI FURNITURE			9.31
18037	00071	WOODMASTER, INC.	0.37	0.45	94.52
18037	00081	MOBEL, INC	0.08	0.31	124.12
18037	00085	KIMBALL INTERNATIONAL COMBO 37-30,50,53*			53.08
18037	00089	JASPER ENGINE EXCHANGE, INC.	8.21	54.92	36.50
18037	00100	KIMBALL INTERNATIONAL*	110.56	13.63	330.44
18037	00102	Styline Industries	13.95	8.10	162.50
18037	00104	INDIANA FURNITURE INDUSTRIES *	0.46	0.55	5.93
18037	00107	JOFCO PLT 1 & 2 COMBO (037-9 & 24)*	3.31	3.42	85.47
18039	00001	MASTER FAB INC.			57.92
18039	00002	OWENS CORNING FABRICATING SOLUTIONS			309.64
18039	00005	CANA INC.			119.59
18039	00009	BAYER HEALTHCARE LLC	13.93	45.96	3.59
18039	00010	CONN-SELMER, INC., VINCENT BACH DIVISION			2.74
18039	00011	STARCRAFT BUS & MOBILITY, DIV FR	0.21	0.25	39.50
18039	00012	VITCO INC	3.21	3.82	0.12
18039	00014	HOME-CREST CORPORATION	1.06	1.12	243.11
18039	00017	MONACO COACH CORPORATION - WAKARUSA	3.33	3.96	298.61
18039	00018	JOHNSON CONTROLS, INC.	0.76	0.90	1.97
18039	00027	PARKER HANNIFIN	2.31	2.75	2.28
18039	00030	H.B. FULLER CO	0.29	0.35	8.22
18039	00035	LOUISIANA-PACIFIC CORP.			23.60
18039	00036	ELKHART PRODUCTS CORPORATION	1.65	1.96	0.11
18039	00039	FOREST RIVER, INC. CEDAR CREEK DIVISION	0.33	0.39	4.26
18039	00050	APG, INC			0.02
18039	00051	ELKHART FOUNDRY & MACHINE CO., INC.		0.01	1.50

FIPS	State ID	Facility Name	CO	NOX	VOC
18039	00055	FLEXIBLE FOAM PRODUCTS, INC.			11.59
18039	00058	BY-PASS PAINT SHOP INC			5.87
18039	00062	COACHMEN RECREATIONAL VEHICLE CO.,LLC			54.03
18039	00063	CTS CORPORATION AUTOMOTIVE PRODUCTS	0.69	0.83	0.05
18039	00065	PRODESIGN COMPOSITES			18.29
18039	00066	SYNDICATE SYSTEMS, INC.	6.75	8.03	0.85
18039	00067	MILLENNIUM PRODUCTS, INC.			34.86
18039	00069	ANCO PRODUCTS, INCORPORATED			2.83
18039	00070	PHILIPS PRODUCTS/VENTLINE DIV	0.55	0.65	4.91
18039	00072	ELKHART BRASS MANUFACTURING CO. INC.	4.60	0.34	2.82
18039	00073	SMOKER-CRAFT INC			71.63
18039	00076	20TH CENTURY FIBERGLASS	0.93	1.11	131.82
18039	00077	GASKA TAPE, INC.		0.32	70.89
18039	00081	BISON MANUFACTURING			22.20
18039	00082	PATRICK INDUSTRIES			66.82
18039	00086	CARPENTER CO.	1.04	1.24	0.59
18039	00087	MONACO COACH CORPORATION - NAPPANEE			72.23
18039	00094	FOUR SEASONS HOUSING			6.21
18039	00096	UNITED EXPRESSLINE, INC.	0.66	1.78	42.15
18039	00097	TRUCK ACCESSORIES GROUP - LEER MIDWEST	0.93	1.11	136.35
18039	00098	BENNINGTON MARINE CORP.			2.30
18039	00099	EFP, CORP	2.85	3.39	35.52
18039	00103	SUPREME CORPORATION	0.00	0.00	76.56
18039	00104	JASON INDUSTRIES, INC.			81.37
18039	00105	PATRIOT HOMES INC.			10.88
18039	00109	20TH CENTURY FIBERGLASS PLANT #4	0.23	0.28	20.64
18039	00110	RANCH FIBERGLAS, INC.			34.49
18039	00118	ELKHART GENERAL HOSPITAL	0.40	0.48	0.03
18039	00122	THE ART OF DESIGN, INC.	0.01	0.02	1.63
18039	00126	GLAVAL CORPORATION			5.96
18039	00130	VENTURE WELDING, INC.	0.37	0.44	56.12
18039	00135	DADON CORP DBA MERHOW INDUSTRIES			1.35
18039	00137	COVERMASTER, INC.			90.89
18039	00141	BETTER WAY PRODUCTS, INC.			218.59
18039	00145	GULF STREAM COACH, INC.	0.75	0.09	41.17
18039	00147	EPS, INC. D/B/A VALSPAR COATINGS			4.41
18039	00152	FIBER-TRON, INC.			8.16
18039	00154	EK BLESSINGS COMPANY, INC.	0.11	0.14	5.25
18039	00155	MILLER DOOR & TRIM INC	0.09	0.10	31.05
18039	00157	NEWMAR CORPORATION			164.72
18039	00166	BECK INDUSTRIES	2.32	2.76	67.16
18039	00170	ET AND T FRAMES, INC.	0.67	1.66	24.89
18039	00172	DOORS PLUS, INC.	0.47	0.54	38.66
18039	00174	NICKELL MOULDING CO., INC.			29.00
18039	00177	STEELCASE, INC., STOW DAVIS DIV.	0.95	1.13	43.97
18039	00178	ROBERT WEED PLYWOOD CORPORATION			15.51
18039	00182	MONACO COACH CORPORATION-ELKHART			107.57
18039	00185	VENTURE WELDING	0.16	0.19	0.01

FIPS	State ID	Facility Name	CO	NOX	VOC
18039	00187	ENVIRONMENTAL TEST SYSTEMS, INC			5.08
18039	00188	ALTEC ENGINEERING, INC.	0.17	0.20	37.81
18039	00189	DOORS AND DRAWERS, INC.			5.04
18039	00191	HAYES LEMMERZ INTERNATIONAL - BRISTOL	21.93	43.90	19.24
18039	00192	CONSOLIDATED LEISURE INDUSTRIES, LLC			21.32
18039	00195	D&W INC.	0.31	0.37	18.70
18039	00198	SUPERIOR LAMINATING, INC.	0.05	0.06	3.16
18039	00200	ACCRA FORM COMPOSITES			5.14
18039	00206	M AND M FABRICATORS CORPORATION	0.76	0.16	1.94
18039	00215	QUALITY FRAMES, INC	0.69	0.76	5.25
18039	00220	FOUR WINDS INTERNATIONAL CORPORATION	0.71	0.85	39.75
18039	00229	LITHOTONE	0.19	0.23	12.52
18039	00230	CREATION WINDOWS	1.13	1.24	22.02
18039	00235	HULL LIFT TRUCK, INCORPORATED			5.85
18039	00242	BAYER HEALTHCARE LLC	0.56	0.66	9.13
18039	00245	MIDDLEBURY HARDWOOD PRODUCTS, INC.			113.19
18039	00246	CROWN AUDIO, INC.			2.75
18039	00248	ELPACO COATINGS CORPORATION	0.15	0.18	26.43
18039	00249	GOSHEN STAMPING COMPANY, INC.	0.16	0.18	0.01
18039	00251	BULL MOOSE TUBE COMPANY, INC			3.85
18039	00253	HAULMARK INDUSTRIES, INC.			6.71
18039	00254	HAULMARK INDUSTRIES, INC.			69.19
18039	00255	AMERICAN CARGO CORPORATION	0.24	0.27	9.35
18039	00257	IMPRESSIONS, INC.	0.01	0.05	2.42
18039	00258	WIELAND DESIGN, INC.	0.47	0.55	5.14
18039	00265	JAYCO INC. (00265)			64.86
18039	00267	GODFREY CONVEYOR COMPANY INC.			64.81
18039	00268	FLEXSTEEL INDUSTRIES, INC.	0.47	0.55	1.15
18039	00269	TRUTH PUBLISHING COMPANY, INC.			1.73
18039	00271	WALTER PIANO COMPANY, INC.			14.08
18039	00272	PACE AMERICAN	7.12	8.48	38.47
18039	00273	HERR CUSTOM PAINTING	0.06	0.07	13.61
18039	00274	ELKHART COUNTY LANDFILL	24.32	1.29	0.74
18039	00276	CUSTOM WOODCRAFT, INC.	0.12	0.13	7.45
18039	00277	MARK LINE INDUSTRIES			3.17
18039	00282	MOULDING DIVISION OF ROBERT WEED PLYWOOD	1.64	0.28	45.88
18039	00283	WELLS CARGO, INC.			30.57
18039	00285	DAMON CORPORATION-BRECKENRIDGE DIV.			5.73
18039	00295	FOREST RIVER INC, CARDINAL DIVISION	2.59	3.08	17.68
18039	00296	SPECIALIZED WOOD PRODUCTS			23.42
18039	00297	PRESTIGIOUS PRINTING	0.23	0.28	3.36
18039	00299	NORTH AMERICAN MOULDING, INC.	0.27	0.33	2.33
18039	00302	FOAMEX			0.08
18039	00306	SKYLINE CORPORATION- PLT 616			4.37
18039	00307	SKYLINE CORPORATION- PLT 812			4.05
18039	00308	SKYLINE CORPORATION- PLT 111			2.35
18039	00309	LIPPERT COMPONENTS, INC.			15.91
18039	00310	SKYLINE CORPORATION- PLT 112			3.41

FIPS	State ID	Facility Name	CO	NOX	VOC
18039	00318	HARTSON KENNEDY CABINET TOP COMPANY, INC			94.49
18039	00320	PRODESIGN PAINT PLANT 820			11.50
18039	00324	ADORN, L.L.C.	0.63	0.75	205.38
18039	00326	CARRERA DESIGNS - PLANT 1	0.13	0.15	37.80
18039	00327	AMERICAN MILLWORK	0.11	0.13	1.81
18039	00332	EZ LOADER	0.19	0.22	0.04
18039	00336	PREMIER FIBERGLASS			5.92
18039	00337	J.E.J. MOULDING			4.37
18039	00338	DAIRY FARMERS OF AMERICA	9.24	11.00	0.63
18039	00343	T.P.C. & COMPANY, INC.	0.04	0.05	2.94
18039	00349	MONOGRAM CONVERSIONS, INC.			9.00
18039	00350	CONQUEST MINI-HOMES/GULFSTREAM COACH,			12.70
18039	00353	VICTORIAN HOMES			4.95
18039	00362	WEVAC PLASTICS CORPORATION, LLC.			16.03
18039	00363	KEYSTONE RV COMPANY			38.59
18039	00364	AUTOSPORT PAINTED ACCESSORIES	0.21	0.25	5.07
18039	00370	BFI WASTE SYSTEMS			0.02
18039	00373	OMEGA INDUSTRIES, INC.			24.60
18039	00376	DUTCHMEN MFG. - 376	0.74	0.88	33.64
18039	00377	DUTCHMENT MFG. - MIDDLEBURY	0.20	0.24	28.28
18039	00379	BEHLEN MANUFACTURING COMPANY	3.07	3.65	0.20
18039	00380	DUTCHMEN MFG. - 380	0.36	0.42	21.48
18039	00393	R D FINISHING, INC.			1.19
18039	00395	COPPE'S CABINETS	1.30	0.22	2.37
18039	00400	BRISTOL LAMINATING, INC.	0.21	0.25	3.27
18039	00402	R AND R CUSTOM WOODWORKING, INC.	1.08	4.25	17.75
18039	00407	DAMON COPORATION PLANTS 1,2,3 AND 9	0.25	0.30	18.21
18039	00415	BTC CABINET			1.83
18039	00416	ROYAL COACH, DIVISION OF MONACO COACH CO			3.20
18039	00423	SWARTZENDRUBER HARDWOOD CREATIONS, LLC			4.73
18039	00424	VAHALA FOAM, INC.	0.04	0.05	14.54
18039	00427	CHEM TECH, INC.			1.90
18039	00433	MILLER'S WOOD-N-THINGS	0.00	0.01	1.51
18039	00434	ACCRA PAC, INC.			70.07
18039	00437	HOOSIER WOOD CREATIONS, INC..	0.00	0.00	17.76
18039	00443	THE COMMODORE CORPORATION			9.94
18039	00444	SUNNYBROOK RV, INC.	0.84	0.92	29.19
18039	00448	INDEPENDENT PROTECTION COMPANY, INC			19.26
18039	00454	COULTER & SON, INC.			11.07
18039	00455	DEXTER AXLE CO.	0.55	2.72	11.36
18039	00456	CARRIAGE, INC. COMBO 039-179&039-00205	0.04	0.05	16.40
18039	00458	FOUR SEASONS HOUSING INC			8.30
18039	00460	NATIVE HARDWOODS INC.			29.47
18039	00461	EARTHMOVERS LANDFILL	30.40	15.20	4.45
18039	00468	CRYSTAL VALLEY HOMES			5.00
18039	00469	FOREST RIVER, INC	2.10	2.50	12.18
18039	00470	FOREST RIVER, INC	0.34	0.40	1.50
18039	00471	FOREST RIVER, INC	2.34	2.79	12.02

FIPS	State ID	Facility Name	CO	NOX	VOC
18039	00472	MICA SHOP, INC.			11.91
18039	00481	CMG, INC.	0.18	0.22	4.14
18039	00483	NU-WOOD COMPANY			8.60
18039	00487	SUPERIOR2 SOLVENTS AND CHEMICALS, INC.			1.74
18039	00489	INDIANA BUILDING SYSTEMS, L.L.C.			36.66
18039	00491	ODYSSEY BOAT DIVISION	0.25	0.29	0.33
18039	00493	GLOBAL GLASS INC.			98.79
18039	00498	VENTURE TECHNOLOGIES, LLC	1.55	1.85	13.60
18039	00499	J AND L CARGO EXPRESS, INC.			24.54
18039	00504	ALPHA SYSTEMS, INC.	0.50	0.55	19.88
18039	00505	DUTCH MILLS			6.68
18039	00508	VSV GROUP DBA MCCOY MILLER/GOSHEN COACH			39.29
18039	00509	FAIRMONT & KUSTOM (COMBO 039-00334&219)	0.40	0.05	119.88
18039	00510	CARGOMATE/CONTINENTAL CARGO/WEHAUL	1.55	1.84	8.19
18039	00514	COACHMEN REC. VEHICLE PLANT NO.900			9.82
18039	00518	KOUNTRY WOOD PRODUCTS, L.L.C.			47.59
18039	00519	ALTEC ENGINEERING, LLC			16.89
18039	00528	JAYCO, INC.(00528)			13.81
18039	00530	UTILIMASTER CORPORATION	0.92	1.09	32.10
18039	00531	EMTEC COMPOSITES, INC.			6.61
18039	00532	ROADMASTER, LLC	0.49	0.55	10.63
18039	00534	LIPPERT COMPONENTS, INC.			0.48
18039	00536	DYNAMAX CORPORATION			12.56
18039	00537	SCHMIDT FURNITURE AND MUSIC, LLC			0.65
18039	00538	VIM RECYCLING	4.12	19.13	1.55
18039	00542	PERFORMANCE PAINTING			33.88
18039	00543	HOOSIER HOUSE FURNITURE, INC.	0.00	0.00	0.48
18039	00548	NORFOLK SOUTHERN RAILWAY COMPANY	1.12	4.52	1.01
18039	00550	STOUTCO, INC.			6.65
18039	00551	MEDTEC AMBULANCE CORPORATION (MEDTEC)	0.21	0.26	6.90
18039	00552	SUPERIOR ENVIRONMENTAL REMEDIATION, INC.			3.67
18039	00554	FOREST RIVER, INC. WILDCAT DIVISION	0.42	0.50	4.35
18039	00556	NOBLE COMPOSITES, INC.	0.23	0.27	89.35
18039	00557	DELIVERY CONCEPTS, INCORPORATED			2.48
18039	00559	FINAL FINISH, LLC	0.03	0.04	2.97
18039	00560	KEYSTONE RV COMPANY			3.31
18039	00561	D & S INDUSTRIES	0.03	0.09	4.16
18039	00570	ORBIT COMPOSITES & BETTER WAY PRODUCTS			5.93
18039	03173	RIETH-RILEY3173 ASPHALT PLANT #375	0.95	3.78	0.19
18039	03296	NIBLOCK EXCAVATING	3.88	3.68	24.23
18041	00004	VISTEON SYSTEMS, LLC	9.47	11.28	66.85
18041	00009	PSI - ENERGY CONNERSVILLE PEAKING STA.	0.35	1.56	0.11
18041	00012	C.P. INCORPORATED			23.40
18041	00015	RECLAIMED ENERGY COMPANY, INC.	1.09	1.30	5.56
18043	00004	PSI ENERGY - GALLAGHER	355.48	6,133.00	49.17
18043	00010	TRANSMONTAIGNE TERMINAL INC.			8.98
18043	00012	FLINT INK NORTH AMERICA CORPORATION	1.00	1.19	42.00
18043	00014	FOAM FABRICATORS, INC.	1.05	1.25	88.23

FIPS	State ID	Facility Name	CO	NOX	VOC
18043	00016	FLOYD MEMORIAL HOSPITAL AND HEALTH SERVS	2.89	3.44	0.19
18043	00023	HITACHI CABLE INDIANA, INC.	0.96	1.15	0.06
18043	00024	CAMEO MARBLE	0.11	0.25	33.43
18043	00026	FIREKING INTERNATIONAL, INC.	2.27	2.70	0.39
18043	00029	PRINT XCEL DBA DISCOUNT LABELS			33.99
18043	00035	BRUCE FOX, INC.			6.84
18043	00039	PRODUCT SPECIALTIES			24.14
18043	00043	FIRE KING SECURITY PRODUCTS, LLC			7.03
18043	00049	PADGETT, INC.			5.60
18043	00050	GENERAL MILLS	1.63	1.94	0.27
18043	00053	W. M. KELLEY COMPANY, INC.			5.05
18045	00001	FOUNTAIN FOUNDRY		0.02	4.01
18045	00002	HARRISON STEEL CASTING	0.18	5.09	6.25
18045	00011	MASTER GUARD CORP.	2.36	2.80	223.85
18047	05211	DAVE O MARA CONTRACTOR PLANT 5	1.16	5.49	1.96
18049	00001	AKRON FOUNDRY, INC.		0.06	2.76
18049	00002	ROCHESTER METAL PRODUCTS CORP.		0.39	28.65
18049	00018	TOPP INDUSTRIES, INC.			16.63
18049	00027	OLYMPIC FIBERGLASS INDUSTRIES			24.66
18049	00029	COUNTY LINE LANDFILL	13.30	6.70	4.05
18051	00007	TEPPCO PRINCETON TERMINAL	1.54	0.30	13.21
18051	00013	PSI ENERGY - GIBSON	2,327.67	45,282.66	279.78
18051	00021	MID-STATES RUBBER PRODUCTS, INC.	0.65	2.59	6.61
18051	00037	TOYOTA MOTOR MANUFACTURING OF INDIANA	10.70	30.94	798.85
18053	00004	MFD MARION PLANT	30.27	37.46	1.32
18053	00020	THOMSON MULTIMEDIA, INC.	474.63	43.45	118.03
18053	00032	HARTSON-KENNEDY CABINET TOP COMPANY, INC			340.62
18053	00040	TETCO - GAS CITY STATION	26.02	45.20	12.82
18053	00058	AMERICAN WOODMARK	1.89	2.25	178.12
18055	00003	COUNTRYMARK COOPERATIVE, INC.			165.62
18055	00008	GRIFFIN INDUSTRIES, INC. - NEWBERRY	63.99	59.85	0.44
18055	00034	WORTHINGTON GENERATION LLC	38.95	37.33	1.56
18055	03293	ROGERS GROUP, INC.-GREENE CO. ASPHALT	10.78	0.79	3.35
18055	05166	RIETH-RILEY5166 PORTABLE ASPHALT PLANT #	1.32	6.04	0.32
18057	00002	INDIANA DUCTILE LLC		0.02	0.17
18057	00004	PSI ENERGY-NOBLESVILLE	29.02	1,152.87	3.01
18057	00006	FIRESTONE INDUSTRIAL PRODUCTS	11.88	36.89	88.78
18057	00008	COUNTRYMARK COOPERATIVE, INC.			15.74
18057	00042	INDUSTRIAL DIELECTRICS, INC.			38.72
18057	03300	MAR-ZANE PLANT #18	46.63	2.91	0.96
18059	00002	ROLL COATER INC.	14.11	16.80	78.09
18059	00009	KEMIRA CHEMICALS, INC.	2.94	23.96	0.19
18059	00018	AVERY DENNISON-FASSON ROLL DIVISION	9.88	11.76	77.06
18059	00023	VACUMET CORP., METALLIZED PAPER DIVISION	4.53	5.39	16.70
18059	00026	MONROE CUSTOM UTILITY BODIES			6.08
18061	00001	KELLER MANUFACTURING CO., INC.	8.67	4.26	42.18
18061	00011	SCHMIDT CABINET COMPANY, INC.			25.29
18061	00012	DARAMIC, INC.	4.91	5.85	1.25

FIPS	State ID	Facility Name	CO	NOX	VOC
18061	00013	KELLER MFG. CO., INC. - NEW SALISBURY	4.19	0.71	44.24
18063	00007	CENTER TERMINAL COMPANY			19.02
18063	00029	TWIN BRIDGES RECYCLING & DISPOSAL FACIL	4.18	2.28	1.35
18063	00047	PHOENIX FABRICATOR AND ERECTORS			16.70
18065	00003	AVESTAPOLARIT INC. PLATE PRODUCTS	10.54	62.83	0.74
18065	00007	GREDE NEW CASTLE, INC.	3.52	4.58	71.74
18065	00014	ALLEGHENY LUDLUM CORPORATION	22.64	208.71	74.84
18065	00019	ANR PIPELINE CO. SULPHUR SPRINGS STATION	42.77	33.54	29.74
18065	00032	CINCAP VII, LLC	5.64	32.00	0.78
18065	00035	HENRY COUNTY HOSPITAL	2.60	3.11	0.17
18065	00036	HAYES LANDFILL, INC.			4.55
18067	00002	DAIMLERCHRYSLER KOKOMO CASTING PLANT	27.01	31.40	2.16
18067	00003	DAIMLERCHRYSLER CORP TRANSMISSION PLANT	185.82	180.18	44.06
18067	00009	HAYNES INTERNATIONAL, INC.	33.95	57.93	3.55
18067	00058	DAIMLERCHRYSLER INDIANA TRANSMISSION PLT	67.76	6.77	2.18
18067	00061	DELPHI DELCO ELECTRONICS SYSTEMS	22.07	26.04	80.02
18069	00012	SUNOCO PARTNERS MARKETING & TERMINALS LP			80.14
18069	00013	MAJESTIC PRODUCTS COMPANY			11.35
18069	00018	KEN-KOAT, INC.	1.05	1.25	62.82
18069	00021	US MINERAL PRODUCTS COMPANY	6,786.13	43.43	17.38
18069	00031	HAYES LEMMERZ INTERNATIONAL	21.39	31.11	25.25
18069	00043	MERIDIAN AUTOMOTIVE SYSTEMS-HUNTINGTON	5.96	2.27	51.02
18069	00059	PRINT SUPPORT INC/MIGNONE COMMUNICATIONS			3.86
18071	00006	VALEO SYLVANIA, LLC	1.81	2.16	49.27
18071	00007	TE PRODUCTS PIPELINE CO.,LMTD PRTNRSH			31.96
18071	00015	CUMMINS ENGINE CO	38.22	184.64	15.37
18071	00016	KOBELCO METAL POWDER OF AMERICA, INC.	153.82	14.93	4.35
18071	00017	AISIN USA MFG., INC.	2.10	2.50	20.11
18071	00023	SCHWARZ PHARMA MFG.,INC.	0.01	9.30	21.39
18071	00034	LA GLORIA OIL AND GAS/CROWN CENTRAL PET.			244.44
18071	00036	HOME PRODUCTS INTERNATIONAL, INC. COMBO	1.68	2.00	162.66
18071	03117	DAVE O MARA CONTRACTOR PLANT 4	0.58	2.78	1.60
18071	03180	ONYX PAVING COMPANY, INC.	0.05	0.05	0.04
18073	00001	SAINT JOSEPHS COLLEGE	9.14	11.40	0.13
18073	00008	NIPSCO - R.M. SCHAHFER	1,192.72	17,215.67	165.81
18073	00011	SOLAE L.L.C.- REMINGTON IN	22.60	21.02	10.57
18073	00020	CITY LIGHT PLANT	0.36	1.69	0.78
18073	00025	TALBERT MFG.	0.63	0.75	27.67
18073	00031	G-P GYPSUM, WHEATFIELD INDIANA	31.27	43.55	23.97
18073	05148	JASPER COUNTY HIGHWAY DEPT.	0.47	0.56	0.18
18075	00003	INDIANA GLASS COMPANY	15.54	87.21	6.18
18075	00004	SAINT-GOBAIN CONTAINERS, INC.	32.66	160.05	32.66
18075	00005	VENTURE INDUSTRIES (PORTLAND)	0.52	0.62	1.28
18075	00012	ANR PIPELINE CO PORTLAND STATION	1.22	15.60	1.02
18075	00017	W & M MFG.,INC.	0.60	0.72	47.65
18075	00023	PATRIOT PAINT CO., INC.	0.06	0.08	9.37
18075	00029	JAY COUNTY LANDFILL	5.35	1.41	2.06
18077	00001	IKEC - CLIFTY CREEK STATION	1,028.19	28,497.00	143.88

FIPS	State ID	Facility Name	CO	NOX	VOC
18077	00003	GROTE INDUSTRIES, LLC			27.96
18077	00007	ARMOR METAL GROUP			50.53
18077	00008	MADISON STATE HOSPITAL	4.91	5.85	0.32
18077	00010	USF/ENVIREX PRODUCTS			18.65
18077	00011	ROTARY LIFT/ A DOVER INDUSTRIES COMPANY			54.19
18079	00002	MUSCATATUCK STATE HOSPITAL & TRAINING	1,028.46	4,915.59	69.60
18079	00010	ERLER INDUSTRIES, INC.			198.48
18079	00014	METALDYNE SINTERED COMPONENTS	16.88	14.04	
18079	00019	PLASFINCO			7.18
18079	03181	DAVE O MARA CONTRACTOR PLANT 1	0.82	3.94	0.42
18081	00005	SONOCO FLEXIBLE PACKAGING	6.43	7.66	438.10
18081	00012	LEAR CORPORATION EEDS & INTERIORS			16.29
18081	00021	ESSEX GROUP, INC.			40.18
18083	00003	PSI ENERGY-EDWARDSPORT	56.53	1,926.46	7.05
18083	00008	ESSEX GROUP, INC.	19.11	43.12	562.58
18083	00027	GOOD SAMARITAN HOSPITAL	3.85	5.21	0.30
18083	00041	WHEATLAND GENERATING FACILITIES	19.85	69.09	1.62
18083	03185	ROGERS GROUP,INC.-VINCENNES ASPHALT	7.58	0.56	3.28
18085	00002	DA-LITE SCREEN COMPANY, INC.	1.66	2.19	157.19
		DALTON CORPORATION WARSAW			
18085	00003	MANUFACTURING	833.84	28.91	176.30
18085	00009	R.R. DONNELLEY & SONS COMPANY	21.87	26.24	267.53
18085	00012	PAR-KAN COMP.	1.18	1.40	17.18
18085	00031	RINKER BOAT COMPANY, INC.			143.05
18085	00037	FLINT INK NORTH AMERICA CORPORATION			54.69
18085	00051	MARBLE CREATIONS			11.10
18085	00067	AERO COACH (DUTCHMEN)			11.59
18085	00070	FRONTLINE MFG.			16.60
18085	00074	EXPLORER VAN COMPANY			35.76
18085	00077	FRONTLINE MANUFACTURING			115.32
18087	00004	ANR PIPELINE CO. LAGRANGE STATION	42.92	319.32	60.03
18087	00007	STARCRAFT RV	16.39	1.84	12.60
18087	00012	STARCRAFT MARINE, LLC			83.56
18087	00018	VENTURE WELDING (HOWE)	0.17	0.20	92.26
18087	00019	JAYCO, INC.(00019)	0.00	0.00	2.44
18087	00023	PALLETONE OF INDIANA, INC,	23.81	8.73	1.50
18087	00031	NISHAKAWA STANDARD	0.96	2.50	37.36
18087	00036	FOUR WOODS LAMINATING	13.16	60.90	71.91
18087	00047	MIDWEST MOLDING, INC.	0.07	0.08	1.42
18087	00051	H.R.O., INC.			8.94
18089	00001	TRANSMONTAIGNE PIPELINE			0.94
18089	00003	BP PRODUCTS NORTH AMERICA INC, WHITING R	4,375.08	10,952.22	1,554.24
18089	00013	RIETER AUTOMOTIVE NORTH AMERICA	9.89	12.00	7.73
18089	00020	AMERICAN CHEMICAL SERVICE, INC.	0.60	3.41	10.38
18089	00053	MARATHON AHS LAND PIPELINE-GRIFFITH EAST			1.50
18089	00059	ENBRIDGE ENERGY, LIMITED PARTNERSHIP			38.96
18089	00062	AVERY DENNISON-DECORATIVE FILM DIVISION	9.46	11.26	24.01
18089	00069	ANR PIPELINE NAT GAS_CO-ST. JOHN STATION	202.87	703.89	79.13
18089	00072	MARATHON ASHLAND PIPE LINE-GRIFFITH STAT			78.44

FIPS	State ID	Facility Name	CO	NOX	VOC
18089	00075	VESUVIUS USA	0.03	0.03	1.08
18089	00076	BP CHEMICAL COMPANY	1.65	2.45	8.56
18089	00081	ENBRIDGE ENERGY, LIMITED PARTNERSHIP			35.48
18089	00090	MUNSTER STEEL			6.51
18089	00093	CARB-RITE COMPANY	5.71	6.80	0.37
18089	00094	MASON CORPORATION	5.86	6.97	4.26
18089	00096	MIDWEST PIPE COATING	1.55	1.85	4.84
18089	00100	BLASTTECH, INC			0.45
18089	00105	A. P. GREEN REFRACTORIES CO. INC.	0.32	0.38	0.02
18089	00106	SCA TISSUE NORTH AMERICA, LLC	11.83	14.09	13.29
18089	00107	REED MINERALS DIV.	1.70	2.02	0.11
18089	00112	CARMEUSE LIME INCORPORATED	408.07	843.34	0.01
18089	00114	METHODIST HOSPITALS INC	2.94	3.50	0.19
18089	00117	NIPSCO - DEAN H. MITCHELL STATION	24.67	257.27	2.88
18089	00121	U S STEEL CO GARY WORKS	87,428.86	5,500.55	2,093.60
18089	00143	GARY SANITARY LANDFILL	24.30	4.40	3.02
18089	00157	REPUBLIC TECHNOLOGIES INTERNATIONAL	1.87	2.94	0.14
18089	00161	INDUSTRIAL STEEL CONSTRUCTION, INC.	1.64	1.95	20.12
18089	00163	NORTH AMERICAN REFRACTORIES	0.77	0.91	0.05
18089	00164	SMITHS MEDICAL ASD, INC			8.58
18089	00167	STANRAIL NORTH PLANT	0.07	0.08	4.34
18089	00169	GARY COAL PROCESSING	10.07	11.98	0.66
18089	00172	USS - CENTRAL TEAMING COMPANY, INC.	0.43	1.98	0.11
18089	00174	TUBE CITY, INC.	1.56	1.86	0.10
18089	00176	BRADENBURG INDUSTRIAL SERVICE COMPANY	0.02	0.11	2.33
18089	00177	PRAXAIR	1.30	1.66	0.18
18089	00179	BUCKO CONSTRUCTION - 15TH STREET PLANT	4.45	7.52	16.92
18089	00180	KOPPERS INDUSTRIES INC	0.53	0.63	1.48
18089	00201	JUPITER ALUMINUM CORPORATION	10.86	59.74	9.17
18089	00202	SILGAN CONTAINERS CORP	4.91	5.85	13.74
18089	00203	CARGILL, INC.	116.23	158.95	86.68
18089	00204	ASF-KEYSTONE, INC.	1.45	4.21	8.57
18089	00205	BP PRODUCTS N.A. INC- HAMMOND TANK FARM			60.02
18089	00209	SHELL OIL PRODUCTS US HAMMOND TERMINAL			18.35
18089	00210	STATE LINE ENERGY LLC	373.89	7,052.91	66.82
18089	00214	EXPLORER PIPELINE COMP.			23.14
18089	00218	HALSTAB DIVISION OF HAMMOND GROUP, INC.	0.79	0.94	0.05
18089	00219	HAMMOND GROUP, INC. (HGI)	5.27	6.28	0.35
18089	00220	LASALLE STEEL COMPANY	8.05	18.82	1.18
18089	00222	RESCO PRODUCTS, INC.	10.94	3.65	93.40
18089	00227	KEIL CHEM -FERRO CO	5.06	6.12	5.60
18089	00228	HUHTAMAKI FOODSERVICE INC.	19.96	12.56	25.13
18089	00229	UNILEVER HPC USA	17.14	12.81	1.77
18089	00230	WOLF LAKE TERMINALS, INC.	1.52	1.81	5.30
18089	00231	MARATHON ASHLAND PET., HAMMOND TERMINAL			57.69
18089	00233	EXXON MOBIL CORPORATION - HAMMOND TERM			29.78
18089	00239	SHELL OIL PRODUCTS US EAST CHICAGO TERM			65.31
18089	00242	RHODIA INC.	11.57	45.52	12.28

FIPS	State ID	Facility Name	CO	NOX	VOC
18089	00244	SAINT MARGARET MERCY HEALTHCARE CENTERS	6.14	7.48	0.44
18089	00247	VERMETTE MACHINE CO., INC.	0.07	0.08	4.36
18089	00248	H. A. INDUSTRIES-DIV OF AM CASTLE & CO.	14.87	17.99	0.97
18089	00249	PURDUE UNIVERSITY CALUMET	2.94	3.50	0.19
18089	00253	ARROW UNIFORM RENTAL	1.08	5.40	0.30
18089	00254	VIKING ENGINEERING COMPANY, INC.	0.27	0.32	0.78
18089	00255	POMP'S TIRE SERVICE, INC.			4.32
18089	00262	SAXON METALS	0.20	1.12	0.06
18089	00291	BUCKEYE TERMINALS, LLC - HARTSDALE STAT			26.30
18089	00295	DAVIES IMPERIAL COATINGS, INC.			7.95
18089	00298	BAKERY FEEDS	1.33	1.59	0.37
18089	00300	U.S. STEEL - EAST CHICAGO TIN OPERATIONS	66.08	35.17	3.48
18089	00301	SAFETY-KLEEN OIL RECOVERY CO.	44.85	111.90	6.41
18089	00307	CITGO PETROLEUM CORP			157.18
18089	00310	W.R. GRACE	14.95	17.80	1.05
18089	00314	GATX RAIL			2.68
18089	00316	ISPAT INLAND INC.	47,213.76	6,355.52	1,595.61
18089	00318	ISG INDIANA HARBOR INC.	6,301.42	1,844.44	110.98
18089	00320	BUCKEYE TERMINALS, LLC - EAST CHICAGO ST			21.77
18089	00326	PHILLIPS PIPELINE	14.74	3.04	98.51
18089	00330	PRAXAIR, INC.	4.22	23.88	0.48
18089	00332	UNION TANK CAR COMPANY - PLANT #1	6.13	7.30	33.90
18089	00333	UNITED STATES GYPSUM COMPANY	46.31	55.13	3.03
18089	00343	UNION TANK CAR CO/E. CHICAGO LINING FA	0.77	0.91	7.23
18089	00345	POLLUTION CONTROL INDUSTRIES, INC			5.05
18089	00356	BEEMSTERBOER SLAG CORPORATION	4.63	21.50	1.14
18089	00358	EAST CHICAGO RECOVERY, INC.	1.21	1.50	1.14
18089	00360	RJR DRYING	2.31	2.76	0.15
18089	00364	TRANSFLO TERMINAL SERVICES, INC.			0.08
18089	00369	OIL TECHNOLOGY, INC. - ISPAT STEEL PLT#2			1.89
18089	00370	HOOSIER RAILCAR			5.34
18089	00373	ELECTROTEK METALS	0.72	0.43	0.05
18089	00375	OIL TECHNOLOGY, INC. - LTV STEEL PLANT			1.52
18089	00379	ASPHALT CUTBACKS, INC.	0.00	0.97	0.08
18089	00381	PROGRESS RAIL SERVICES CORPORATION	2.65	3.02	13.54
18089	00382	INDIANA HARBOR COKE COMPANY	408.89	824.84	2.07
18089	00406	STANRAIL SOUTH PLANT			10.12
18089	00407	AVERY DENNISON GRAPHICS DIVISION	6.26	7.46	10.16
18089	00426	MUNSTER COMMUNITY HOSPITAL	7.93	9.50	0.52
18089	00435	PRAXAIR INC	22.74	22.52	3.45
18089	00443	SACO INDUSTRIES, INC.			18.24
18089	00448	IRONSIDE ENERGY, LLC	2.77	3.40	0.23
18089	00449	WHITING CLEAN ENERGY, INC.	50.40	91.00	5.28
18089	00453	BP PRODUCTS N.A. INC. - WHITING TERMINAL			7.63
18089	00456	LLOYD'S MOBILE GASOLINE STATION	0.00	0.01	0.45
18089	00458	LAFARGE NORTH AMERICA	28.94	5.83	0.57
18089	00460	CHEMCOATERS	0.22	0.26	4.32
18089	00461	FORMER MARATHON #2318			0.00

FIPS	State ID	Facility Name	CO	NOX	VOC
18089	00463	NIPSCO VECTOR CROWN POINT PIPELINE HEATE	0.06	0.07	0.00
18089	00464	NIPSCO NORTH HAYDEN PIPELINE HEATER	1.59	1.89	0.10
18089	00465	FRITZ ENTERPRISES INC.	1.57	7.70	0.29
18089	03215	WALSH & KELLY INC.:GRIFFITH PLANT	4.72	5.62	1.47
18089	03226	RIETH-RILEY3226 ASPHALT PLANT #367	4.50	4.33	0.09
18091	00018	CASTING SERVICE	3.16	3.85	33.08
18091	00020	WEIL MCLAIN, A UNITED DOMINION COMPANY	1.13	3.69	44.30
18091	00021	NIPSCO - MICHIGAN CITY	354.87	9,811.59	76.92
18091	00028	SILIGAN CONTAINERS CORP.	5.96	7.10	155.42
18091	00040	ROLL COATER INC.	24.33	28.96	126.17
18091	00052	AMPCOR II, INC.			37.57
18091	00053	CRITERION CATALYST AND TECHNOLOGIES, LP	12.56	21.00	3.06
18091	00061	KSI, LLC	0.21	0.25	0.01
18091	00067	DEERCROFT RECYCLING & DISPOSAL FACIL.	128.83	45.53	27.32
18091	00069	WEISS PRESTAINING INC.	0.96	1.10	78.59
18091	00079	POLYFOAM PACKERS CORPORATION	2.07	2.47	86.04
18091	00104	VITAMINS, INC.			103.00
18091	00106	HOLSUM FT. WAYNE, INC.	1.83	2.18	57.08
18091	00119	SPRINGVILLE COMPRESSOR STATION	2.43	41.71	0.95
18093	00002	LEHIGH CEMENT COMPANY	561.44	4,188.33	92.09
18093	00007	GM POWERTRAIN BEDFORD FACILITY	58.74	69.93	3.85
18093	00010	MANCHESTER TANK			7.15
18093	00013	TEXAS GAS TRANSMISSION - LEESVILLE	7.14	20.58	2.32
18093	00015	DUNN MEMORIAL HOSPITAL	1.18	1.40	0.08
18093	03287	ROGERS GROUP,INC.-LAWRENCE CO. ASPHALT			6.37
18093	05064	NEWCO METALS PROCESSING	3.68	3.08	0.30
18095	00005	GUIDE CORPORATION	18.54	22.42	203.80
18095	00012	OWENS BROCKWAY GLASS CONTAINER INC.	25.70	282.31	17.90
18095	00016	DELPHI CORPORATION LLC.	9.45	11.25	27.57
18095	00037	ALAC GARMENT SERVICES	1.22	1.45	19.14
18095	00044	PLASTECH	4.10	4.89	199.48
18095	00048	ELSA LLC			15.90
18095	00051	IMPA - ANDERSON STATION	9.31	5.50	0.81
18097	00001	HUBBARD FEEDS INC. FORMERLY CONTI GROUP	0.16	0.20	0.01
18097	00002	AMERICAN ART CLAY CO. INC.	0.70	0.92	1.38
18097	00005	BRIDGEPORT BRASS D/B/A OLIN BRASS	9.96	17.75	1.16
18097	00009	CENTRAL STATE HOSPITAL	0.02	0.07	0.00
18097	00010	GM MFD INDIANAPOLIS METAL CENTER	2.45	2.91	0.16
18097	00012	DAIMLER CHRYSLER CORPORATION FOUNDRY	24.90	29.62	75.95
18097	00014	NATIONAL RAILROAD PASSENGER CORPORATION			8.18
18097	00015	CARRIER CORPORATION			18.18
18097	00019	ELI LILLY AND COMPANY (LCC)	0.68	0.20	1.46
18097	00020	CARGILL DRY CORN INGREDIENTS	7.63	5.09	8.32
18097	00021	VISTEON CORPORATION - INDIANAPOLIS PLANT	26.81	17.38	1.76
18097	00028	ADM GRAIN COMPANY	0.36	0.43	0.02
18097	00029	ZIMMER PAPER PRODUCTS INC	0.61	1.02	0.27
18097	00030	MEADWESTVACO			5.30
18097	00031	INDIANA VENEERS CORP	8.86	6.59	2.88

FIPS	State ID	Facility Name	CO	NOX	VOC
18097	00032	INDIANAPOLIS BELMONT WWTP	1,413.59	155.04	77.93
18097	00033	IPL HARDING STREET STATION	481.75	6,591.21	65.83
18097	00034	C.C. PERRY K STEAM PLANT	243.89	1,467.41	10.88
18097	00037	CAPITOL CITY CONTAINER CORP.			0.12
18097	00039	INTERNATIONAL TRUCK AND ENGINE CORP.	359.69	32.62	200.01
18097	00040	VALSPAR COATINGS	1.32	1.57	27.45
18097	00041	WISHARD MEMORIAL HOSPITAL	15.16	18.10	3.78
18097	00042	NATIONAL STARCH & CHEMICAL CORPORATION	28.53	61.22	3.91
18097	00050	IR VON DUPRIN		0.70	5.68
18097	00061	CITIZENS GAS & COKE	446.36	389.81	74.75
18097	00063	INTERSTATE CASTINGS	0.00	0.02	10.94
18097	00068	INDPLS.JUVENILE CORRECTIONAL FACILITY	0.13	0.15	0.01
18097	00072	ELI LILLY AND COMPANY (LTC)			42.25
18097	00076	BP - INDIANAPOLIS TERMINAL			17.32
18097	00077	EQUILON ENTERPRISES LLC-INDIANAPOLIS			32.53
18097	00078	MARATHON ASHLAND PET.- SPEEDWAY TERMINAL			54.12
18097	00079	QUEMETCO, INC.	214.50	255.14	4.68
18097	00081	DORSEY PAVING INC	0.00	0.00	0.04
18097	00082	F.E. HARDING ASPHALT COMPANY	4.20	5.02	3.56
18097	00086	MILESTONE CONTRACTORS, L.P.	4.30	15.63	0.66
18097	00088	RIETH-RILEY88 ASPHALT PLANT #325	1.39	5.32	0.26
18097	00089	RIETH-RILEY89 ASPHALT PLANT #326	1.56	5.96	0.29
18097	00093	CRYOVAC RIGID PACKAGING CRYOVAC, INC.			331.88
18097	00095	PANHANDLE EASTERN PIPELINE CO	165.51	1,559.53	65.05
18097	00098	ASPHALT MATERIALS, INC.	5.89	7.41	3.37
18097	00100	RAYTHEON TECH. SERVICES CO.	3.36	4.00	7.34
18097	00102	BMG MUSIC	1.01	1.21	0.07
18097	00107	SHOREWOOD PACKAGING CORP OF INDIANA			60.82
18097	00116	INDIANAPOLIS NEWSPAPERS - DOWNTOWN			12.92
18097	00119	BEST ACCESS SYSTEMS			11.75
18097	00121	SENSIENT FLAVORS, INC.	0.76	0.91	8.72
18097	00123	COVANTA INDIANAPOLIS, INC.	67.01	799.77	7.96
18097	00127	SUPERIOR METAL TECHNOLOGIES	0.59	0.70	0.09
18097	00129	ST VINCENT HOSPITAL	2.13	2.54	0.14
18097	00131	E & B PAVING INC.	5.01	4.75	3.69
18097	00135	GEIGER & PETERS, INC.			8.12
18097	00139	METALWORKING LUBRICANTS COMPANY	4.34	5.63	0.31
18097	00140	FIRESTONE BUILDING PRODUCTS CO.			8.77
18097	00141	CITIZENS GAS & COKE UTILITY - LNG NORTH	2.64	6.44	0.15
18097	00143	GAC INDIANAPOLIS SHEETFED DIVISION			7.13
18097	00145	GAC INDIANAPOLIS WEB DIVISION			8.26
18097	00146	MILLER VENEERS,INC.	0.02	0.00	0.00
18097	00151	BUTLER UNIVERSITY	3.63	4.32	0.24
18097	00154	INLAND PAPERBOARD - GRAPHIC RESOURCE CEN	0.31	0.37	19.94
18097	00156	UNITED AIRLINES INDPLS MAINTENANCE CENTR	11.28	12.62	37.98
18097	00159	MARATHON ASHLAND PET. - INDPLS TERMINAL			83.38
18097	00160	SAINT CLAIR PRESS	0.08	0.09	8.60
18097	00161	KROGER COMPANY - INDIANAPOLIS BAKERY	9.66	11.50	27.80

FIPS	State ID	Facility Name	CO	NOX	VOC
18097	00163	ST. FRANCIS HOSPITAL - BEECH GROVE	4.52	6.04	0.32
18097	00165	MAR-ZANE, INC. PT. 16	13.63		4.61
18097	00170	INTERSTATE BRANDS CORP.	4.28	5.10	86.22
18097	00176	LORD CORPORATION			1.83
18097	00178	COMMERCIAL FINISHING	0.38	0.45	1.22
18097	00179	COMMERCIAL FINISHING CORP 26TH ST.	0.04	0.05	2.10
18097	00181	CONAGRA FOODS	4.55	5.42	0.30
18097	00182	POSTER DISPLAY			6.06
18097	00186	ASHLAND DISTRIBUTION CO. - INDIANAPOLIS	0.08	0.10	4.02
18097	00188	KERR-MCGEE CHEMICAL CORPORATION - FPD	1.22	1.45	6.80
18097	00197	FIBERGLAS & PLASTIC FABRICATING INC.			1.83
18097	00229	COMMUNITY HOSPITAL EAST	5.21	17.36	0.34
18097	00231	DELUXE FINANCIAL SERVICES	0.13	0.15	5.94
18097	00233	GENERAL DEVICES CO., INC	0.87	1.15	6.15
18097	00235	HOLCOMB & HOKE MFG CO., INC.	0.34	0.40	2.29
18097	00241	FOUNTAIN TRUCK EQUIPMENT CO.			0.59
18097	00242	PRATT CORPORATION			18.23
18097	00243	NATIONAL BY-PRODUCTS, INC.	8.85	10.54	2.09
18097	00255	INLAND PAPERBOARD - ROOSEVELT	0.27	0.32	8.88
18097	00256	ALTEC INDUSTRIES, INC.			3.89
18097	00257	FEDERAL EXPRESS	2.07	5.12	0.19
18097	00259	DOW AGROSCIENCES	8.05	9.71	0.53
18097	00260	SELECO, INC.			0.63
18097	00265	INDY RAILWAY SERVICE CORP.			2.50
18097	00270	KELLER CRESCENT CO., INC.			2.46
18097	00272	INDUSTRIAL COATINGS SERVICES	1.40	1.67	3.85
18097	00273	TOYOSHIMA INDIANA, INC.			2.50
18097	00275	MAJOR TOOL & MACHINE, INC.			1.37
18097	00283	INDPLS AIR ROUTE TRAFFIC CONTROL CENTER	1.57	5.68	0.64
18097	00286	SUPERIOR OIL COMPANY			11.30
18097	00287	CITIZENS GAS & COKE UTILITY - LNG SOUTH	3.98	28.84	1.14
18097	00295	CITADEL ARCHITECTURAL PRODUCTS			9.82
18097	00296	WINONA MEMORIAL HOSPITAL	1.42	1.75	0.10
18097	00297	CMW, INC.	0.11	0.13	7.56
18097	00298	PRINT COMMUNICATIONS			39.60
18097	00301	HORNER ELECTRIC			1.25
18097	00302	CORSI CABINET COMPANY, INC.			18.04
18097	00303	IVC INDUSTRIAL COATING			20.48
18097	00304	ST. FRANCIS HOSPITAL AND HEALTH CENTER	2.60	3.99	0.22
18097	00310	ALLISON TRANSMISSION	177.65	198.33	22.24
18097	00311	ROLLS-ROYCE CORPORATION. PLANT 5 & 8	38.90	85.35	54.42
18097	00312	CENTRAL CORRUGATED, INCORPORATED	1.45	1.72	0.09
18097	00314	INLAND PAPERBOARD - STOUT FIELD	1.82	2.17	6.04
18097	00315	REILLY INDUSTRIES, INC.	2,843.86	79.21	81.14
18097	00316	RTP COMPANY			0.63
18097	00318	SPORT GRAPHICS, INC.			15.48
18097	00329	THE JACKSON GROUP			5.94
18097	00331	SCHERER INDUSTRIAL GROUP, INC.	0.21	0.25	0.43

FIPS	State ID	Facility Name	CO	NOX	VOC
18097	00338	ROCHE DIAGNOSTICS CORPORATION	0.03	0.31	0.01
18097	00342	SUBURBAN STEEL SUPPLY COMPANY	0.21	0.51	4.13
18097	00346	SPG GRAPHICS			7.54
18097	00352	GEORGETOWN SUBSTATION GENERATING PLANT	45.36	9.80	4.97
18097	00354	VILLAGE PANTRY #392			0.01
18097	00357	DESIGN INDUSTRIES			25.70
18097	00359	BAUER BUILT, INC.			2.80
18097	00360	MASCO SUPPORT SERVICES			10.24
18097	00365	QUAKER OATS CO-MAYFLOWER MIDWEST FACILIT	7.77	9.25	0.51
18097	00366	SOUTH SIDE LANDFILL, INC.	121.48	8.63	9.75
18097	00368	EAR SPECIALTY COMPOSITES & AEARO COMPANY			54.54
18097	00369	VISTA PACKAGING			0.00
18097	00373	PARTS CLEANING TECHNOLOGIES, LLC	0.09	0.47	2.32
18097	00374	AT OF GM - PARK FLETCHER BUILDING 38	0.25	1.07	0.16
18097	00377	IPL THOMPSON SUBSTATION	2.77	12.85	0.68
18097	00378	IPL SUNNYSIDE SUBSTATION	1.16	5.40	0.29
18097	00379	IPL ROCKVILLE SUBSTATION	0.91	4.21	0.22
18097	00380	IPL PROSPECT SUBSTATION	0.79	3.68	0.20
18097	00381	IPL GERMAN CHURCH SUBSTATION	1.34	6.24	0.33
18097	00382	IPL-GLENS VALLEY SUBSTATION	1.01	4.69	0.25
18097	00383	IPL-GUION SUBSTATION	1.10	5.09	0.27
18097	00384	IPL CUMBERLAND SUBSTATION	0.85	3.93	0.21
18097	00391	ROYAL SPA MFG.			13.15
18097	00402	INDIANAPOLIS NEWSPAPERS - PULLIAM CENTER			3.39
18097	00410	ULRICH CHEMICAL, INC.			2.35
18097	00421	QWEST - T1	0.04	0.17	0.01
18097	00422	QWEST - POP	0.01	0.05	0.00
18099	00001	BREMEN CASTINGS INC	93.12	5.06	19.17
18099	00002	INDIANA HEAT TRANSFER CORPORATION			16.05
18099	00003	PLYMOUTH FOUNDRY			0.07
18099	00004	DOORCRAFT OF INDIANA	0.88	0.91	18.47
18099	00020	BREMEN GLASS INC.			190.23
18099	00021	BOMARKO INC.	1.64	1.95	9.09
18099	00022	AKER PLASTICS CO. INC.	1.34	1.60	186.74
18099	00023	EAGLE CRAFT INC.			15.32
18099	00025	FERRO CORPORATION			70.14
18099	00028	PACTIV CORPORATION	1.18	1.40	184.58
18099	00029	PIONEER HI-BRED INTL	2.60	3.09	0.17
18099	00033	BREMEN CORPORATION			31.41
18099	00035	AKER PLASTICS CO. INC.	0.32	0.38	23.52
18099	00036	BREMEN TECHNOLOGIES, LLC	0.56	0.65	36.77
18099	00037	CHARLESTON CORP.			19.18
18099	00041	NISHIKAWA STANDARD COMPANY			35.20
18099	00043	AK INDUSTRIES, INC.			22.61
18099	00044	DURA-VENT CORPORATION			19.28
18099	00047	CREATIVE WOOD PRODUCTS, INC			3.11
18099	00048	WHITLEY PRODUCTS, INC	1.25	5.95	4.83
18099	00050	FOIL LAM., DIV. OF GLENMARK			0.93

FIPS	State ID	Facility Name	CO	NOX	VOC
18099	00052	HOOSIER TIRE & RUBBER CORP.			25.57
18099	00079	STANDARD GLAS, INC.	0.03	0.03	3.83
18099	00080	C&C FIBERGLASS, INC.			65.04
18099	00089	MIKE'S CUSTOM PAINTING			32.97
18101	00001	UNITED STATES GYPSUM COMPANY	51.00	61.34	3.34
18101	00005	NAVAL SURFACE WARFARE CENTER CRANE	194.97	53.76	29.10
18103	00001	PERU UTILITIES	0.72	29.91	0.10
18103	00008	GRISSOM AIR RESERVE BASE	4.46	6.48	3.51
18103	00011	COUNTRYMARK COOPERATIVE, INC.			301.62
18103	00016	WOODCREST MANUFACTURING	1.52	0.26	95.97
18103	00021	TRELLEBORG AUTOMOTIVE			3.80
18103	00027	WOODCREST MANUFACTURING - DINETTE PLANT			132.72
18105	00001	ROGERS GROUP-BLOOMINGTON	0.01	0.01	0.00
18105	00003	GENERAL ELECTRIC COMPANY	4.83	5.75	129.23
18105	00005	INDIANA UNIVERSITY	167.91	369.24	2.44
18105	00006	UNITED TECH.- OTIS ELEVATORS			12.33
18105	00018	PRINTPACK, INC.	1.14	1.35	267.92
18105	01331	RIETH-RILEY1331PORTABLE CONCRETE PLANT #	0.50	2.32	0.12
18105	03182	ROGERS GROUP,INC.-BLOOMINGTON ASPHALT	46.25	3.40	20.00
18105	05023	ROGERS GROUP,INC.-PORTABLE ASPHALT	2.13	9.53	7.23
18107	00003	CRAWFORDSVILLE ELECTRIC LIGHT & POWER	35.35	77.79	0.50
18107	00004	CROWN CORK & SEAL CO. (USA) INC.	2.88	3.43	89.68
18107	00007	RAYBESTOS	16.53	19.68	79.40
18107	00038	NUCOR STEEL	640.20	225.70	54.48
18107	00045	FLEETWOOD TRAVEL			7.98
18107	00052	R.R. DONNELLEY & SONS COMPANY	9.57	11.40	197.74
18109	00002	GENERAL SHALE PRODUCTS	77.81	49.60	2.33
18109	00004	IPALCO-PRITCHARD STATION	180.44	4,479.97	25.21
18109	00007	HYDRAULIC PRESS BRICK CO.	68.38	213.33	85.07
18111	00005	BON L MANUFACTURING COMPANY			115.20
18111	00017	NEWTON COUNTY LANDFILL	14.50	7.30	11.47
18113	00004	DALTON CORP. KENDALLVILLE MFG. FACILITY	754.06	29.74	85.69
18113	00008	DEXTER AXLE COMPANY	2.39	2.85	12.39
18113	00013	ESSEX GROUP, INC.	1.26	1.50	189.58
18113	00018	THYSSENKRUPP BUDD COMPANY - KENDALLVILLE			168.61
18113	00019	COLWELL GENERAL			6.50
18113	00023	VIBRACOUSTIC NORTH AMERICA			30.50
18113	00036	KREIDER MANUFACTURING, INC.	0.12	0.17	9.59
18113	00049	TOWER STRUCTURAL LAMINATING, INC.			27.05
18113	00071	ALUMINUM RECOVERY TECHNOLOGIES, INC.	1.79	3.98	2.92
18113	00074	STRUCTURAL COMPOSITES OF INDIANA, INC.	0.23	0.26	29.95
18117	00004	SPRINGS VALLEY MANUFACTURING			78.74
18117	00006	INDIANA HANDLE COMPANY	1.65	0.28	6.58
18117	00010	TETCO - FRENCH LICK STATION	43.23	576.41	14.40
18117	00013	COPPERFIELD, LLC.	1.67	1.99	2.38
18117	00014	PAOLI, INC.			228.50
18121	00008	PEPL - MONTEZUMA STATION	76.18	1,500.36	26.52
18123	00006	GE INDUSTRIAL SYSTEMS, INC	0.55	0.64	12.08

FIPS	State ID	Facility Name	CO	NOX	VOC
18123	00018	SCHWAB CORPORATION			14.13
18123	00019	THYSSENKRUPP WAUPACA, INC. - PLANT 5	1,550.19	77.37	173.52
18123	03259	J.H. RUDOLPH & CO., INC.	0.59	5.59	0.11
18125	00001	HOOSIER ENERGY - RATTTS STATION	171.75	3,988.98	20.28
18125	00002	IPL PETERSBURG GENERATING STATION	1,330.43	19,951.55	186.11
18125	00004	MIDWESTERN GAS TRANSMISSION	0.09	0.59	0.02
18125	00005	TEXAS GAS TRANSMISSION - PETERSBURG	3.36	76.22	2.38
18125	00033	BLACKFOOT LANDFILL	17.70	5.90	13.10
18127	00001	BETHLEHEM STEEL CORP. - BURNS HARBOR	142,455.39	9,287.07	960.69
18127	00002	NIPSCO - BAILLY STATION	330.33	15,725.50	72.26
18127	00003	AOC	5.98	9.01	11.61
18127	00005	PRECOAT METALS	8.77	10.44	268.98
18127	00009	NATIONAL STEEL CORP	82.39	140.20	5.39
18127	00012	UNITED STATES CAN COMPANY	7.24	8.62	70.05
18127	00021	POWDER PROCESSING AND TECHNOLOGY	2.60	3.10	0.17
18127	00024	LEVY CO., CALUMITE/FINISHING PLANT	1.42	3.96	0.13
18127	00025	CARGILL BURNS HARBOR GRAIN EL	5.46	6.50	0.36
18127	00028	MAGNEQUENCH UG			5.89
18127	00030	REXAM BEVERAGE CAN COMPANY			46.67
18127	00036	BETA STEEL CORP	191.31	150.80	23.40
18127	00039	MAGNETICS INTERNATIONAL, INC.	11.05	13.15	0.72
18127	00040	WORTHINGTON STEEL	4.58	5.45	0.30
18127	00042	WHEELER RECYCLING & DISPOSAL FACILITY	42.85	11.09	4.11
18127	00050	ISK MAGNETICS INC	6.22	7.52	0.41
18127	00059	SIGNATURE GRAPHICS, INC.			11.41
18127	00067	PORTSIDE ENERGY CORPORATION	101.34	120.96	7.53
18127	00069	PRAXAIR INC.	3.99	4.77	0.26
18127	00075	BETHLEHEM STEEL - KVAERNER SONGER, INC.	0.01	0.05	0.00
18127	00076	PHILIP METALS - BURNS HARBOR YARD	5.59	2.73	0.05
18127	00085	AMERICAN IRON OXIDE COMPANY	29.15	27.76	1.91
18127	00088	CITY OF VALPO-ELDEN KUEHL WWTP	0.95	0.05	0.00
18127	00094	JET CORR, INC.	7.09	4.22	3.11
18127	00097	SUPERIOR ENVIRONMENTAL REMEDIATION, INC			8.24
18127	03214	WALSH & KELLY INC.	3.45	5.74	0.11
18127	03224	RIETH-RILEY3224 ASPHALT PLANT #3670	1.06	4.03	0.21
18129	00001	CARGILL, INC. - MOUNT VERNON	0.00	0.00	0.00
18129	00002	GE PLASTICS MT. VERNON INC.	497.91	2,484.21	362.09
18129	00003	COUNTRYMARK COOPERATIVE, INC (REFINERY)	7,945.87	510.25	657.86
18129	00010	SIGECO - A. B. BROWN	375.08	7,392.29	44.23
18129	00021	MEAD JOHNSON & CO	5.61	6.71	0.37
18129	00028	SIGECO - OLIVER GAS STORAGE FIELD	5.52	39.26	1.60
18129	00035	CONSOLIDATED GRAIN AND BARGE COMPANY	21.71	25.85	273.46
18129	00037	COUNTRYMARK COOPERATIVE, INC (RIVERDOCK)			2.43
18131	00017	THE BRAUN CORPORATION			33.21
18133	00002	LONE STAR INDUSTRIES, INC	223.66	1,512.16	0.01
18133	00018	LEAR CORP.-			15.51
18133	00019	H.A. PARTS PRODUCTS OF INDIANA COMPANY			122.56
18133	00024	PUTNAM PLASTICS INC			37.00

FIPS	State ID	Facility Name	CO	NOX	VOC
18133	00027	HEARTLAND AUTOMOTIVE, LLC			79.44
18135	00002	ASTRAL INDUSTRIES INC.	0.16	0.38	119.10
18135	00009	YORK CASKET COMPANY			155.22
18135	00012	ANCHOR GLASS CONTAINER CORPORATION	21.73	666.02	22.55
18135	00018	UNION CITY BODY COMPANY LLC			86.14
18135	00030	RANDOLPH FARMS, INC.	78.85	4.21	2.62
18137	00002	HILL-ROM CO	1.08	3.36	32.69
18137	00007	JOSEPH E. SEAGRAM & SONS, INC.			925.54
18137	00008	ROMWEBER FURNITURE COMPANY	3.06	15.30	81.09
18137	00016	BATESVILLE MFG, INC. COMBO 137-00016			368.52
18137	03191	PAUL H. ROHE CO, INC.	0.16	0.46	0.12
18137	03258	PAUL H. ROHE	0.41	1.65	0.02
18137	05047	DAVE O MARA CONTRACTOR PLANT 3	0.45	2.16	1.25
18139	00001	JEFFERSON SMURFIT CORPORATION	15.79	18.80	10.03
18139	00011	INTAT PRECISION, INC.		0.49	49.81
18141	00007	RMG FOUNDRY (FORMERLY DODGE)	2.61	3.25	34.32
18141	00008	RACO, INC.	0.27	2.97	0.05
18141	00009	HOLY CROSS SERVICES CORP.	12.43	15.03	0.34
18141	00013	UNIVERSITY OF NOTRE DAME DU LAC	86.56	598.96	3.72
18141	00016	BP - GRANGER TERMINAL			7.32
18141	00026	ASPHALT ENGINEERS INC	2.76	2.62	2.03
18141	00027	RIETH-RILEY27 ASPHALT PLANT #365	0.79	3.00	0.14
18141	00031	AM GENERAL CORPORATION	0.21	0.72	169.89
18141	00033	NEW ENERGY CORP.	31.51	920.75	1,191.32
18141	00051	PRAIRIE VIEW RECYCLING	113.07	103.96	10.62
18141	00058	MOHAWK FLUSH DOORS, INC.	0.23	0.28	2.89
18141	00062	POLYGON COMPANY	0.30	0.35	34.07
18141	00063	MOSSBERG AND COMPANY, INC.			21.82
18141	00067	AMERICAN ROLLER CO, LLC	0.26	1.18	13.05
18141	00069	SPECTRA INCORPORATED	0.59	0.70	7.03
18141	00071	ULTRA/GLAS OF LAKEVILLE			18.34
18141	00072	GALLERY GRAPHICS GROUP	0.18	0.21	66.61
18141	00090	IMAGINEERING ENTERPRISES, INC.	0.31	0.37	3.51
18141	00091	MOLDING PRODUCTS DIV			4.76
18141	00093	WHITFORD TRAILER & EQUIPMENT	0.05	0.23	2.21
18141	00100	STRIPCO, INC.	1.03	1.22	0.07
18141	00102	EDCOAT LIMITED PARTNERSHIP	0.08	9.42	20.42
18141	00103	CHARLES O. HILER DIVISION	0.29	0.80	2.63
18141	00105	BECHTEL PLANT MACHINERY INCORPORATED MIS	0.38	1.80	0.04
18141	00116	SOUTH BEND ABSORBTECH? LLC.	0.09	0.11	54.31
18141	00120	TOTAL ENTERPRISES, LTD.			1.71
18141	00125	ASHLAND DISTRIBUTION SOUTH BEND PLANT	0.08	0.10	0.31
18141	00128	PENZ PRODUCTS, INC.	0.36	0.42	6.05
18141	00129	JANCO PRODUCTS, INC.	0.37	0.42	18.40
18141	00132	ARAMARK UNIFORM SERVICES	1.56	1.86	0.10
18141	00134	J.Q. TEX, INC - DBA TRAILMASTER			11.55
18141	00139	SOUTH BEND TERMINAL - BET	1.50	3.70	12.82
18141	00144	MASONITE (FORMERLY PREMDOR)	0.83	1.05	1.59

FIPS	State ID	Facility Name	CO	NOX	VOC
18141	00146	ROYAL ADHESIVES & SEALANTS			38.90
18141	00158	INDIANA UNIVERSITY-SOUTH BEND	0.54	0.64	0.04
18141	00159	I/N TEK I/N KOTE COMBINED	44.93	132.22	9.88
18141	00160	CITY OF SOUTH BEND-WASTEWATER TREATMENT	64.82	75.20	7.44
18141	00166	SAFETY & ENVIRONMENTAL RESOURCES	0.32	0.39	10.96
18141	00167	REMOTE CONTROLS, INC.			3.48
18141	00172	HONEYWELL INC. COMBO (141-5&6)	50.08	32.69	33.80
18141	00177	MISHAWAKA WASTEWATER TREATMENT PLANT	7.29	55.39	3.11
18141	00179	BOWNE SOUTH BEND MANUFACTURING			13.06
18141	00181	ABTREX INDUSTRIES			10.27
18141	00184	POWER GEAR			1.90
18141	00186	SAMPSON FIBERGLASS, INC.	0.15	0.18	23.94
18141	00191	SOUTH BEND MEDICAL FOUNDATION	0.34	0.41	0.03
18141	00192	JACKEL, INC.			3.28
18141	00193	CLARK STATION # 379			1.18
18141	00196	NCP COATINGS, INC.	0.13	0.15	2.65
18141	00197	HOGUE ENTERPRISES	0.03	0.03	5.15
18141	03121	BROOKS CONSTRUCTION CO. INC.	1.42	1.44	0.77
18141	03219	WALSH & KELLY INC.	2.71	6.36	6.16
18143	00007	MULTICOLOR CORPORATION	6.04	7.19	57.21
18143	00010	FREUDENBERG-NOK GENERAL PARTNERSHIP			0.19
18143	00016	GENPAK LLC	6.22	7.41	117.22
18143	03192	DAVE O MARA CONTRACTOR PLANT 6	0.43	2.07	0.25
18143	05195	INDEPENDENT ASPHALT COMPANY	0.28	1.11	0.01
18145	00001	KNAUF FIBERGLASS	195.33	128.96	107.15
18145	00011	ANR PIPELINE CO - SHELBYVILLE STATION	116.26	1,414.19	74.71
18145	00013	JUPITER COIL COATING DIVISION			16.24
18145	00017	MERIDIAN AUTOMOTIVE SYSTEMS	7.20	8.57	161.13
18145	00024	PLIANT CORPORATION (FORMERLY KCL CORP)			0.12
18145	00028	FREUDENBERG-NOK GENERAL PARTNERSHIP			41.60
18145	00033	TEXTRON AUTOMOTIVE EXTERIORS INC.	0.87	1.04	66.35
18145	00035	CENTRAL SOYA COMPANY, INC.	27.93	33.25	436.61
18145	00049	CALDWELL GRAVEL SALES, INC.			2.50
18145	00057	MPL CORPORATION			8.33
18145	00060	CALDWELL GRAVEL SALES (CGS)	2.21	4.72	0.25
18147	00020	INDIANA MICHIGAN POWER-ROCKPORT	2,316.59	34,013.58	277.50
18147	00041	AK STEEL ROCKPORT WORKS	122.90	130.08	16.17
18147	00044	FLEXCEL - SANTA CLAUS			69.12
18147	00050	AMERICAN IRON OXIDE COMPANY	5.65	11.50	0.82
18149	00005	T G C - NORTH JUDSON STATION	50.55	468.16	7.19
18151	00015	TENNECO AUTOMOTIVE			19.60
18153	00005	HOOSIER ENERGY RURAL ELEC MEROM STATION	778.94	14,112.18	92.69
18153	00019	TEXAS GAS TRANSMISSION - WILFRED	5.73	23.80	1.64
18155	00005	SWISS CAPS			34.48
18157	00001	ALCOA - LAFAYETTE DIVISION	13.07	13.96	66.46
18157	00003	A.E. STALEY SAGAMORE OPERATION	52.91	532.93	596.84
18157	00006	ELI LILLY & COMPANY-TIPPECANOE LABS	167.75	359.58	121.74
18157	00012	PURDUE UNIVERSITY -WADE UTILITY PLANT	300.32	696.09	11.36

FIPS	State ID	Facility Name	CO	NOX	VOC
18157	00014	ORC PLASTICS - ROSTONE			10.50
18157	00032	REA MAGNET WIRE CO	10.64	12.80	170.60
18157	00033	A.E. STALEY MAN. CO. SOUTH PLANT	259.81	519.07	441.35
18157	00035	CANAM STEEL CORPORATION			112.90
18157	00038	CARGILL, INC. - LAFAYETTE	20.45	24.36	557.91
18157	00044	CATERPILLAR INC.	55.93	185.70	55.93
18157	00046	WABASH NATIONAL LP MAIN PLANT			199.60
18157	00050	SUBARU-ISUZU	29.74	35.41	500.55
18157	00052	LAFAYETTE HOME HOSPITAL	4.15	5.07	0.73
18157	00068	WABASH NATIONAL LP SOUTH PLANT			30.25
18157	00080	PERRY CHEMICAL & MFG. CO., INC.			9.55
18163	00001	SIGECO - OHIO RIVER	10.42	116.39	0.72
18163	00003	SILGAN CLOSURES, LLC	7.27	8.65	42.69
18163	00005	EVANSVILLE STATE HOSPITAL	3.40	2.45	0.22
18163	00008	INDIAN INDUSTRIES - DBA ESCALADE SPORTS			6.87
18163	00009	HOOSIER STAMPING & MFG. CORP	0.36	0.43	4.55
18163	00011	BOOTZ MFG CO	4.00	4.76	12.45
18163	00013	KOCH ORIGINALS	0.39	0.80	1.59
18163	00014	GEO KOCH SONS INC	0.07	0.16	2.08
18163	00015	MEAD JOHNSON AND COMPANY	24.17	13.31	34.38
18163	00016	STRUCTURAL FABRICATORS, INC.			6.50
18163	00017	GUARDIAN AUTOMOTIVE TRIM, INC.	5.92	7.05	240.59
18163	00018	RED SPOT PAINT & VARNISH CO., INC.	0.16	0.16	43.85
18163	00020	A ASPHALT CO. INC.	0.15	0.25	0.09
18163	00022	WHIRLPOOL CORP	11.69	13.94	152.36
18163	00024	CRADDOCK FINISHING CORPORATION			18.54
18163	00025	MARATHON ASHLAND PET. - EVANSVILLE TERM			12.32
18163	00026	INLAND PAPERBOARD - EVANSVILLE	3.61	4.30	1.40
18163	00029	DEACONESS HOSPITAL	0.35	1.41	0.09
18163	00036	KARGES FURNITURE CO., INC.	0.32	0.38	7.05
18163	00040	HARTFORD BAKERY INC.	0.77	2.67	68.75
18163	00041	ST. MARY'S MEDICAL CENTER	0.84	1.01	0.06
18163	00045	EVANSVILLE METAL PROD		0.05	0.20
18163	00048	EVANSVILLE SHEET METAL WORKS, INC			0.34
18163	00063	TRANSMONTAIGNE TERMINAL INC.			34.55
18163	00064	UNIV OF EVANSVILLE	3.72	4.82	0.27
18163	00067	GENERAL ELECTRIC I&RS	0.07	0.08	0.48
18163	00069	ST. MARY'S MEDICAL CENTER - WELBORN	0.50	0.60	0.03
18163	00070	FAULTLESS CASTER CORP	1.75	2.08	0.63
18163	00071	INTRAMETCO PROCESSING INC.	0.00	1.06	0.00
18163	00078	ROBUR CORPORATION	0.11	0.36	0.02
18163	00081	INDIANA TUBE CORP.	0.43	2.16	33.98
18163	00084	SIGECO - BERGDOLT ROAD - NEG7	0.18	0.78	0.03
18163	00087	OBRYAN BARREL CO., INC.	0.14	0.69	2.29
18163	00094	PPG INDUSTRIES, INC. WKS #28	3.45	4.11	20.46
18163	00095	INDUSTRIAL CONTRACTORS, INC. METAL FAB	0.06	0.07	6.21
18163	00096	FLANDERS ELECTRIC MOTOR SERVICE	0.76	0.90	2.93
18163	00097	KELLER CRESCENT CO., INC.			19.57

FIPS	State ID	Facility Name	CO	NOX	VOC
18163	00106	BERRY PLASTICS CORP.			30.00
18163	00107	AZTECA MILLING, L.P.	16.93	20.15	1.11
18163	00112	AMERIQUAL FOODS, INC.	2.94	3.50	0.19
18163	00114	BFI	116.81	38.71	7.63
18163	00115	MASTER MANUFACTURING CO., INC.	0.08	0.38	7.98
18163	00116	KRIEGER & RAGSDALE CO., INC.	0.08	0.10	4.96
18163	00117	ALVEYS SIGN COMPANY			6.32
18163	00120	FERRO CORP. FILLED AND REINFORCED PLAST.			24.92
18163	00129	KERRY INGREDIENTS	3.66	4.36	43.47
18163	00131	SIGNCRAFTERS			3.47
18163	00139	FLANDERS ELECTRIC MOTOR SERVICE	0.03	0.04	0.18
18163	00146	FEHRENBACHER CABINETS			0.91
18163	00147	UNIVERSITY OF SOUTHERN INDIANA	3.74	4.45	0.24
18163	00148	UNISEAL, INC.; PLANT #2	0.67	0.80	5.39
18163	00153	STERLING BOILER AND MECHANICAL, INC.			0.54
18163	00156	SKY CYLINDER TESTING, INC.	0.03	0.03	1.71
18163	00157	TRUCK CLEAN, INC.			6.45
18163	00163	COLLIS, INC.	5.73	6.82	13.02
18163	00165	DECORING SUPPLIES & EQUIPMENT, INC.	0.02	0.02	7.09
18163	00888	BRAKE SUPPLY	0.09	0.10	5.92
18163	03146	JERRY DAVID ASPHALT	0.03	3.55	0.36
18163	03408	J.H.RUDOLPH & CO	1.96	6.56	0.14
18165	00001	PSI ENERGY - CAYUGA	687.98	7,993.59	82.52
18165	00002	COLONIAL BRICK CORP.	2.70	26.58	0.00
18165	00009	ELI LILLY & COMPANY-CLINTON LABS	251.49	949.46	850.29
18165	00022	DUKE ENERGY VERMILLION, LLC	11.30	31.24	1.60
18167	00001	ALCAN ALUMINUM CORPORATION	5.29	6.30	440.35
18167	00004	WABASH ENVIRONMENTAL TECHNOLOGIES, LLC	0.10	0.12	0.01
18167	00007	GARTLAND FOUNDRY COMPANY		0.03	8.66
18167	00010	INDIANA STATE UNIV	17.73	6.95	1.16
18167	00011	GREAT DANE TRAILERS	0.15	0.18	34.24
18167	00013	PFIZER INC	12.09	247.87	1.97
18167	00019	US PENITENTIARY	0.99	11.40	3.13
18167	00021	PSI ENERGY - WABASH RIVER	551.56	11,094.56	72.42
18167	00022	INTERNATIONAL PAPER CO.	230.89	284.82	69.95
18167	00033	BEMIS COMPANY, INC.	9.20	10.95	1,681.91
18167	00036	RAILWORKS WOOD PRODUCTS	2.50	2.97	23.30
18167	00060	STANDARD REGISTER COMPANY			5.93
18167	00087	PRAIRIE GROUP - PLANT 76	0.00	0.00	0.09
18167	00091	WABASH RIVER ENERGY LTD.	332.11	28.03	0.28
18167	00116	VICTORY ENVIRONMENTAL SERVICES			6.06
18167	00120	CSN, LLC	18.56	5.53	1.22
18167	00123	MIRANT SUGAR CREEK LLC	4.66	14.83	0.12
18169	00001	BPB AMERICA, INC.	1,658.21	11.67	6.20
18169	00002	JEFFERSON SMURFIT CORPORATION (U.S.)	87.50	171.58	42.24
18169	00004	GDX AUTOMOTIVE - WABASH	2.77	3.30	140.06
18169	00009	THERMAFIBER INC. WABASH PLANT	8,934.45	60.76	134.33
18169	00010	WABASH ALLOYS, L.L.C.	128.62	128.21	82.21

FIPS	State ID	Facility Name	CO	NOX	VOC
18169	00019	NORTH MANCHESTER FOUNDRY, INC.	1.27	1.57	8.22
18169	00034	PSI ENERGY MIAMI-WABASH PEAKING STATION	0.50	2.20	0.15
18169	00035	ALUMITECH OF WABASH, INC.	1.82	2.16	0.12
18169	00042	HAYES LEMMERZ INT'L - WABASH	6.13	11.05	42.38
18169	00058	WABASH VALLEY LANDFILL	43.04	7.91	14.97
18171	03273	MILESTONE CONTRACTORS L.P.	0.47	1.77	0.09
18173	00001	SIGECO - F.B.CULLEY GENERATING STATION	290.71	6,238.16	33.97
18173	00002	AGC DIVISION - ALCOA POWER GENERATING	595.78	16,456.99	70.84
18173	00007	ALCOA INC. - WARRICK OPERATIONS	22,537.38	250.80	594.59
18175	00001	CHILD CRAFT INDUSTRIES, INC.	23.71	16.66	267.28
18175	00007	KIMBALL OFFICE CASEGOODS MANUFACTURING	15.32	2.60	137.60
18177	00001	#30 - SILGAN CLOSURES, LLC	7.66	9.12	41.96
18177	00006	JOHNS MANVILLE	73.96	51.97	33.98
18177	00009	RICHMOND POWER & LIGHT	79.71	1,562.67	11.15
18177	00015	MASTERBRAND CABINETS, INC. - RICHMOND			135.00
18177	00040	IMPA - RICHMOND STATION	13.53	7.22	1.19
18177	00057	ROMARK INDUSTRIES			46.47
18177	00061	MILSO INDUSTRIES			50.33
18177	00068	MASONITE			20.24
18177	00083	J. M. HUTTON & CO. (COMBO 177-53&54)			57.90
18177	00090	RICHMOND LINER FOUNDRY & MACHINE PLANT	2.69	3.20	0.18
18179	00005	STERLING CASTING	801.30	1.67	22.89
18179	00010	FRANKLIN ELEC CO	3.66	23.75	28.22
18179	00016	WAYNE METALS, LLC	0.86	1.03	10.44
18179	00026	MONTPELIER ELECTRIC GENERATING STATION	31.70	45.07	10.20
18181	00008	BP - BROOKSTON			91.06
18181	00022	BALL METAL BEVERAGE CONTAINER CORP	7.14	8.50	84.68
18181	00035	LIBERTY LANDFILL, INC.	22.30	8.60	6.21
18181	03172	ROBERT L. KELLY ASPHALT, INC.	0.20	0.19	0.14
18183	00014	HOLMES & COMPANY INC.	12.80	2.18	1.05
18183	00016	ESSEX GROUP, INC. METALS PROCESSING #055	25.90	20.51	368.61
18183	00023	FORT WAYNE FOUNDRY - COLUMBIA CITY	13.02	15.50	15.52
18183	00026	FIBRE FORM CORPORATION	0.07	0.08	0.68
18183	00030	STEEL DYNAMICS, INC. STRUCTURAL AND RAIL	156.62	44.46	10.67
Total			380,057.63	367,856.26	57,949.42

iii) Area Sources

Table 5-3 Annual Area Source Emissions Inventory

FIPS	County	CO	NOX	VOC
18001	ADAMS	703.84	238.48	1,092.31
18003	ALLEN	1,926.83	1,733.42	5,798.16
18005	BARTHOLOMEW	779.44	491.85	1,969.59
18007	BENTON	56.68	34.77	537.80
18009	BLACKFORD	235.00	70.50	537.98

FIPS	County	CO	NOX	VOC
18011	BOONE	237.46	148.34	1,171.52
18013	BROWN	613.28	42.80	386.57
18015	CARROLL	313.17	96.25	599.14
18017	CASS	397.24	262.22	1,099.34
18019	CLARK	877.71	400.71	2,376.99
18021	CLAY	363.65	90.90	725.13
18023	CLINTON	260.93	166.65	897.68
18025	CRAWFORD	863.24	30.25	477.45
18027	DAVISS	756.74	121.06	940.01
18029	DEARBORN	721.96	146.37	765.22
18031	DECATUR	543.12	195.94	895.57
18033	DE KALB	669.81	388.67	1,312.21
18035	DELAWARE	732.24	498.85	2,444.56
18037	DUBOIS	980.23	423.21	1,663.64
18039	ELKHART	2,396.44	1,825.49	4,748.36
18041	FAYETTE	392.62	169.01	675.34
18043	FLOYD	605.09	321.05	1,638.92
18045	FOUNTAIN	320.36	101.53	686.32
18047	FRANKLIN	589.66	69.54	540.65
18049	FULTON	316.04	113.59	719.43
18051	GIBSON	363.82	179.73	969.19
18053	GRANT	667.11	365.38	1,650.19
18055	GREENE	802.74	90.76	803.31
18057	HAMILTON	746.95	583.08	3,074.64
18059	HANCOCK	286.72	185.39	1,219.93
18061	HARRISON	1,258.14	152.94	1,019.73
18063	HENDRICKS	417.63	277.67	1,723.74
18065	HENRY	424.04	188.78	1,219.11
18067	HOWARD	631.32	614.79	1,690.73
18069	HUNTINGTON	357.89	225.40	980.23
18071	JACKSON	917.74	257.86	1,475.11
18073	JASPER	296.19	108.50	1,067.99
18075	JAY	478.99	124.82	731.45
18077	JEFFERSON	574.35	147.02	784.68
18079	JENNINGS	704.17	109.79	796.06
18081	JOHNSON	616.69	463.29	2,776.78
18083	KNOX	290.25	124.53	1,048.75
18085	KOSCIUSKO	1,050.24	567.95	2,328.88
18087	LAGRANGE	1,098.40	280.19	1,202.93
18089	LAKE	1,838.49	2,010.98	7,491.70
18091	LA PORTE	870.00	510.12	2,310.39
18093	LAWRENCE	1,107.55	207.27	1,101.87
18095	MADISON	748.73	552.52	2,416.05
18097	MARION	3,465.70	4,002.12	13,837.83
18099	MARSHALL	782.85	288.33	1,266.39
18101	MARTIN	469.62	40.65	334.58
18103	MIAMI	409.43	143.66	940.19
18105	MONROE	1,202.43	473.36	2,008.86
18107	MONTGOMERY	411.02	239.07	1,163.14

FIPS	County	CO	NOX	VOC
18109	MORGAN	751.16	196.03	1,286.75
18111	NEWTON	129.18	64.26	587.75
18113	NOBLE	853.65	381.79	1,449.77
18115	OHIO	120.73	10.78	128.47
18117	ORANGE	800.43	89.13	621.40
18119	OWEN	895.38	82.68	685.12
18121	PARKE	456.82	52.51	583.45
18123	PERRY	772.57	85.00	588.38
18125	PIKE	352.24	32.29	382.97
18127	PORTER	689.04	615.93	2,316.30
18129	POSEY	226.09	112.29	644.00
18131	PULASKI	247.64	60.56	540.70
18133	PUTNAM	499.48	136.24	828.87
18135	RANDOLPH	537.23	133.59	861.14
18137	RIPLEY	795.37	148.81	836.59
18139	RUSH	233.91	73.47	624.37
18141	ST JOSEPH	1,412.59	1,224.25	4,485.64
18143	SCOTT	600.19	111.65	671.84
18145	SHELBY	403.08	253.27	1,103.18
18147	SPENCER	504.98	94.48	655.35
18149	STARKE	357.49	81.87	697.25
18151	STEUBEN	494.42	263.83	1,150.23
18153	SULLIVAN	315.81	54.47	649.97
18155	SWITZERLAND	314.38	21.76	247.04
18157	TIPPECANOE	898.18	779.11	2,573.62
18159	TIPTON	103.36	60.19	450.41
18161	UNION	80.95	18.36	199.31
18163	VANDERBURGH	927.72	870.26	3,226.36
18165	VERMILLION	208.67	65.50	464.15
18167	VIGO	738.70	452.09	2,115.14
18169	WABASH	417.84	211.54	839.37
18171	WARREN	109.34	26.12	370.16
18173	WARRICK	483.63	158.78	1,065.27
18175	WASHINGTON	1,262.73	127.40	956.24
18177	WAYNE	637.69	395.06	1,723.26
18179	WELLS	299.87	141.20	803.84
18181	WHITE	326.77	144.09	911.83
18183	WHITLEY	471.74	182.16	866.95
	Totals	59,673	29,710	133,327

iv) Nonroad Emissions

Table 5-4 Annual Nonroad Emissions Inventory

FIPS	County	CO	NOX	VOC
18001	ADAMS	2,167.64	542.52	193.14
18003	ALLEN	35,449.34	4,248.61	2,611.92
18005	BARTHOLOMEW	5,986.34	919.78	471.45
18007	BENTON	1,124.61	472.64	90.45

FIPS	County	CO	NOX	VOC
18009	BLACKFORD	836.99	309.86	58.33
18011	BOONE	7,527.96	966.40	605.34
18013	BROWN	1,458.84	69.53	304.44
18015	CARROLL	1,884.45	745.18	307.11
18017	CASS	4,088.57	1,190.08	374.44
18019	CLARK	6,488.03	3,064.52	522.62
18021	CLAY	1,957.35	448.69	224.00
18023	CLINTON	2,362.29	743.62	239.37
18025	CRAWFORD	632.66	546.62	110.05
18027	DAVIESS	1,896.55	710.09	195.49
18029	DEARBORN	2,627.47	652.06	214.66
18031	DECATUR	2,923.17	445.62	210.53
18033	DE KALB	3,686.66	1,904.27	509.96
18035	DELAWARE	27,773.27	1,666.82	2,136.55
18037	DUBOIS	3,191.88	870.98	283.72
18039	ELKHART	17,134.45	3,375.53	1,462.36
18041	FAYETTE	1,362.01	445.56	151.21
18043	FLOYD	5,462.59	714.80	376.28
18045	FOUNTAIN	2,248.56	692.77	337.50
18047	FRANKLIN	1,367.22	296.48	197.25
18049	FULTON	2,581.29	402.82	558.11
18051	GIBSON	2,659.31	1,192.81	387.31
18053	GRANT	4,380.00	815.61	385.20
18055	GREENE	2,231.34	499.28	281.14
18057	HAMILTON	20,889.60	1,804.71	1,477.49
18059	HANCOCK	4,421.22	816.73	405.42
18061	HARRISON	1,949.66	903.15	196.68
18063	HENDRICKS	6,524.98	1,666.03	504.86
18065	HENRY	3,101.72	835.94	300.66
18067	HOWARD	6,764.52	1,001.67	536.08
18069	HUNTINGTON	3,149.85	934.11	316.98
18071	JACKSON	2,832.22	953.04	256.46
18073	JASPER	2,874.45	844.76	454.26
18075	JAY	1,593.88	466.24	139.36
18077	JEFFERSON	2,188.49	505.55	288.50
18079	JENNINGS	1,252.00	494.08	131.51
18081	JOHNSON	7,961.63	733.62	674.23
18083	KNOX	5,046.48	1,149.65	476.14
18085	KOSCIUSKO	8,972.99	2,028.35	1,274.41
18087	LAGRANGE	4,546.49	569.76	970.47
18089	LAKE	36,274.43	9,099.92	4,100.29
18091	LA PORTE	10,290.51	3,237.42	1,159.51
18093	LAWRENCE	2,681.76	823.52	348.31
18095	MADISON	7,676.41	1,390.12	733.96
18097	MARION	71,495.88	7,292.64	4,944.70
18099	MARSHALL	4,251.62	1,440.22	570.37
18101	MARTIN	811.90	405.48	105.38
18103	MIAMI	2,269.19	769.04	235.55
18105	MONROE	9,622.40	842.70	1,041.53

FIPS	County	CO	NOX	VOC
18107	MONTGOMERY	3,390.97	1,089.99	301.17
18109	MORGAN	4,642.95	476.65	443.25
18111	NEWTON	2,559.73	471.34	717.41
18113	NOBLE	4,409.13	1,823.82	675.62
18115	OHIO	398.67	189.26	41.19
18117	ORANGE	1,147.08	295.03	168.98
18119	OWEN	1,306.60	182.52	160.02
18121	PARKE	1,334.37	346.49	183.56
18123	PERRY	1,217.99	692.90	208.24
18125	PIKE	875.60	296.11	130.87
18127	PORTER	13,764.15	3,247.38	2,291.48
18129	POSEY	2,206.61	1,371.57	288.94
18131	PULASKI	2,250.49	525.67	585.62
18133	PUTNAM	2,199.59	1,031.94	237.27
18135	RANDOLPH	2,183.56	756.48	246.66
18137	RIPLEY	2,007.77	568.35	260.95
18139	RUSH	1,296.44	639.11	104.70
18141	ST JOSEPH	19,798.35	3,093.18	1,613.75
18143	SCOTT	1,321.50	198.17	143.95
18145	SHELBY	3,143.82	869.72	238.13
18147	SPENCER	2,187.72	1,224.97	251.74
18149	STARKE	2,152.40	634.06	461.13
18151	STEUBEN	4,763.62	447.66	897.20
18153	SULLIVAN	1,372.91	697.23	230.22
18155	SWITZERLAND	474.46	381.57	77.44
18157	TIPPECANOE	9,721.10	2,249.11	879.86
18159	TIPTON	1,055.83	407.86	81.29
18161	UNION	788.25	426.86	136.34
18163	VANDERBURGH	15,675.39	2,415.19	1,102.82
18165	VERMILLION	1,168.64	702.77	173.39
18167	VIGO	7,105.46	1,885.12	657.63
18169	WABASH	2,816.91	1,029.42	352.30
18171	WARREN	866.31	686.89	148.63
18173	WARRICK	2,324.26	494.18	323.29
18175	WASHINGTON	1,299.17	539.11	122.27
18177	WAYNE	4,117.06	1,084.52	381.70
18179	WELLS	2,000.77	654.32	180.56
18181	WHITE	2,765.57	1,010.43	400.32
18183	WHITLEY	3,116.94	990.41	482.28
Totals		520,163	106,089	51,825

v) Onroad Emissions

Table 5-5 Annual Onroad Emissions Inventory

FIPS	County	CO	NOX	VOC
18001	ADAMS	8,831.44	1,119.67	647.78
18003	ALLEN	86,746.38	9,694.20	6,440.05

FIPS	County	CO	NOX	VOC
18005	BARTHOLOMEW	23,990.24	2,971.71	1,673.76
18007	BENTON	3,106.70	427.90	215.46
18009	BLACKFORD	2,939.33	357.80	229.73
18011	BOONE	19,273.21	2,442.24	1,251.73
18013	BROWN	5,084.99	700.39	352.68
18015	CARROLL	5,606.71	768.17	392.77
18017	CASS	10,684.24	1,325.42	788.96
18019	CLARK	28,127.68	3,469.53	1,950.57
18021	CLAY	9,823.80	1,291.03	651.01
18023	CLINTON	11,670.19	1,484.93	803.04
18025	CRAWFORD	8,098.30	1,101.10	472.83
18027	DAVIESS	6,783.36	854.75	508.72
18029	DEARBORN	14,992.19	2,018.83	978.05
18031	DECATUR	13,824.62	1,797.51	873.16
18033	DE KALB	15,716.84	2,008.02	1,054.38
18035	DELAWARE	31,026.10	3,641.12	2,257.57
18037	DUBOIS	11,542.51	1,466.85	836.14
18039	ELKHART	51,742.99	5,968.33	3,864.18
18041	FAYETTE	6,197.30	742.66	478.34
18043	FLOYD	18,592.60	2,329.66	1,302.90
18045	FOUNTAIN	8,328.06	1,127.49	503.29
18047	FRANKLIN	7,313.76	997.44	489.60
18049	FULTON	5,774.01	747.80	421.24
18051	GIBSON	10,405.24	1,349.31	728.83
18053	GRANT	24,103.04	2,907.25	1,702.83
18055	GREENE	9,341.37	1,220.88	676.65
18057	HAMILTON	44,848.93	5,167.32	3,252.39
18059	HANCOCK	18,210.31	2,310.76	1,247.47
18061	HARRISON	13,057.73	1,793.38	835.89
18063	HENDRICKS	30,594.57	3,894.78	2,117.62
18065	HENRY	19,348.54	2,517.92	1,289.97
18067	HOWARD	18,761.82	2,168.72	1,465.46
18069	HUNTINGTON	16,429.73	2,095.81	1,080.73
18071	JACKSON	17,336.93	2,187.67	1,154.07
18073	JASPER	18,522.25	2,478.46	1,133.13
18075	JAY	5,696.17	718.99	423.75
18077	JEFFERSON	7,929.56	972.54	602.30
18079	JENNINGS	8,109.24	1,071.66	582.23
18081	JOHNSON	34,585.60	3,917.75	2,466.60
18083	KNOX	10,146.45	1,202.71	767.60
18085	KOSCIUSKO	20,751.64	2,692.70	1,493.55
18087	LAGRANGE	15,703.77	2,156.95	976.03
18089	LAKE	92,992.54	11,959.14	7,074.20
18091	LA PORTE	38,533.98	4,825.66	2,666.92
18093	LAWRENCE	12,575.20	1,562.79	927.67
18095	MADISON	39,756.32	4,587.63	2,958.77
18097	MARION	256,847.40	24,833.30	19,350.09
18099	MARSHALL	13,243.63	1,702.01	958.59
18101	MARTIN	2,490.78	338.68	176.92

FIPS	County	CO	NOX	VOC
18103	MIAMI	9,129.86	1,123.91	677.02
18105	MONROE	25,530.29	2,977.21	1,934.22
18107	MONTGOMERY	17,184.81	2,216.22	1,113.64
18109	MORGAN	22,079.10	2,855.68	1,540.73
18111	NEWTON	5,612.45	770.34	373.95
18113	NOBLE	12,068.16	1,570.36	877.19
18115	OHIO	1,287.00	180.03	92.25
18117	ORANGE	5,238.89	715.79	368.85
18119	OWEN	5,708.81	781.72	400.32
18121	PARKE	3,401.30	471.02	247.82
18123	PERRY	8,933.15	1,160.58	577.73
18125	PIKE	4,141.74	570.48	287.26
18127	PORTER	30,359.33	4,560.61	2,241.19
18129	POSEY	12,814.79	1,696.27	819.01
18131	PULASKI	4,299.87	592.25	298.22
18133	PUTNAM	16,021.40	2,113.70	1,035.43
18135	RANDOLPH	7,837.59	1,004.16	568.30
18137	RIPLEY	10,185.69	1,388.48	668.05
18139	RUSH	5,060.33	657.10	368.41
18141	ST JOSEPH	58,130.02	6,244.81	4,396.34
18143	SCOTT	9,105.06	1,149.14	615.74
18145	SHELBY	16,121.95	2,066.59	1,075.70
18147	SPENCER	9,603.33	1,314.06	616.89
18149	STARKE	6,425.97	879.24	451.25
18151	STEUBEN	19,942.07	2,672.42	1,198.96
18153	SULLIVAN	5,368.08	731.35	379.95
18155	SWITZERLAND	2,111.61	295.37	151.35
18157	TIPPECANOE	36,692.17	4,286.40	2,714.81
18159	TIPTON	4,368.46	577.09	315.20
18161	UNION	2,318.99	319.41	160.84
18163	VANDERBURGH	43,744.51	4,822.76	3,349.43
18165	VERMILLION	6,940.53	906.07	460.45
18167	VIGO	33,288.31	3,686.05	2,541.62
18169	WABASH	9,163.13	1,105.86	686.76
18171	WARREN	2,653.22	365.44	184.01
18173	WARRICK	21,058.04	2,644.09	1,403.09
18175	WASHINGTON	6,328.57	834.54	471.70
18177	WAYNE	23,538.54	2,884.56	1,661.37
18179	WELLS	6,189.62	793.52	462.53
18181	WHITE	11,003.64	1,463.01	702.89
18183	WHITLEY	8,479.74	1,095.99	619.60
	Totals	1,765,610	212,033	126,658

b) Statewide Summerday Emissions

All emissions are in tons per day

i) Totals

Table 5-6 Statewide Total Summerday Emissions

Sector	CO	NOX	VOC
AREA	71.2	66.56	400.04
BIOGENIC	139.97	60.11	937.03
NONROAD	2,299.16	331.21	221.85
ON-ROAD	4,074.23	582.25	371.44
POINT	1,131.52	1,089.85	187.64
Totals	7,716	2,130	2,118

ii) Point Sources

Table 5-7 Summerday Point Source Emissions

FIPS	State ID	Facility Name	CO	NOX	VOC
18001	00005	CENTRAL SOYA COMPANY INC	0.34	0.75	1.28
18001	00015	GILPIN IRONWORKS INC.			0.30
18001	00022	ELKHART PRODUCTS CORP	0.00	0.00	0.00
18001	00023	BING ASSEMBLY SYSTEMS, LLC	0.01	0.01	0.39
18001	00025	FLEETWOOD MOTOR HOMES OF AMERICA-OLD		0.00	0.19
18001	00031	THUNDERBIRD PRODUCTS, INC.			0.38
18001	00043	GOLD SHIELD OF INDIANA, INC.			0.94
18001	00049	ALL AMERICAN HOMES OF INDIANA, LLC			0.03
18003	00003	DANA TORQUE-TRACTION MANUF. TECH. INC	0.04	0.07	0.02
18003	00007	FORT WAYNE FOUNDRY-LIMA ROAD DIVISION	0.01	0.01	0.03
18003	00008	UNIROYAL GOODRICH TIRE MFG.	0.09	0.26	0.15
18003	00013	PHELPS DODGE MAGNET WIRE COMPANY	0.05	0.06	0.36
18003	00014	REA MAGNET WIRE CO, INC	0.01	0.01	0.11
18003	00017	TOKHEIM CORPORATION	0.01	0.01	0.00
18003	00031	GE INDUSTRIAL SYSTEMS (GEIS)	0.02	0.03	0.18
18003	00032	MTI INSULATED PRODUCTS, INC.	0.00	0.00	0.03
18003	00036	GENERAL MOTORS NATP FORT WAYNE ASSEMBLY	0.20	0.27	5.47
18003	00038	GRABILL CABINET COMPANY	0.00	0.00	0.15
18003	00045	PEPL - EDGERTON STATION	0.17	2.12	0.07
18003	00046	LINCOLN FOODSERVICE PRODUCTS, INC.	0.00	0.00	0.36
18003	00057	OMNISOURCE CORPORATION	0.01	0.01	0.00
18003	00059	MERIDIAN AUTOMOTIVE SYSTEMS 1	0.02	0.02	0.53
18003	00064	KARL SCHMIDT UNISIA, INC.	0.00	0.01	0.03
18003	00069	TETRA PAK MATERIALS LP	0.00	0.00	0.04
18003	00070	FORT WAYNE FOUNDRY-PONTIAC DIVISION	0.02	0.03	0.13
18003	00071	FORT WAYNE POOLS, INC.			0.07
18003	00072	PLASTIC COMPOSITES CORPORATION	0.00	0.00	0.05
18003	00169	WIELAND FURNITURE	-	-	0.05
18003	00177	HARRIS KAYOT INC.			0.05
18003	00196	AVERY DENNISON-FASSON ROLL DIV.	0.01	0.03	0.15

FIPS	State ID	Facility Name	CO	NOX	VOC
18003	00198	WARD CORPORATION	0.00	0.01	0.01
18003	00205	ELITE ENTERPRISES*			0.39
18003	00224	OTTENWELLER COMPANY, INC.	0.00	0.00	0.04
18003	00225	FOAMEX, L.P.	0.08	0.00	0.38
18003	00232	POLAR KING INTERNATIONAL			0.05
18003	00249	MASTER SPAS, INC.			0.27
18003	00257	MCBETH ROAD LANDFILL	0.11	0.02	0.02
18003	00269	ESSEX GROUP INC; FORT WAYNE & CHEM. PROC	0.02	0.03	0.21
18003	00272	PARKVIEW MEMORIAL HOSPITAL	0.01	0.05	0.01
18003	00275	PRECISION PRODUCTS GROUP, INC.	0.00	0.00	0.01
18003	00284	GE SPECIALTY INDUSTRIAL SYSTEMS	0.01	0.00	0.10
18003	00286	SUPERIOR ALUMINUM ALLOYS	0.05	0.08	0.05
18003	00291	UNITED REFUSE COMPANY, INC.			0.01
18003	00302	FORT WAYNE LIQUID COATINGS, INC	0.00	0.00	0.00
18003	03212	WAYNE ASPHALT & CONST	0.20	0.19	0.15
18003	05204	BUNN EXCAVATING, INC.	0.00	0.00	0.00
18005	00002	CUMMINS ENGINE CO #5	0.07	0.61	0.02
18005	00006	GOLDEN CASTING CORPORATION	2.52	0.01	0.41
18005	00008	ARVINMERITOR, INC., 17TH STREET PLANT	0.01	0.01	0.09
18005	00015	CUMMINS, INC. (COLUMBUS ENGINE PLANT)	0.19	0.86	0.18
18005	00040	TOYOTA IEM, INC.	0.01	0.01	0.12
18005	00042	ENKEI AMERICA, INC.	0.03	0.05	0.05
18005	00047	CUMMINS MIDRANGE ENGINE PLANT - COLUMBUS	0.02	0.08	0.05
18005	00048	RIGHTWAY FASTENERS INC	0.00	0.00	0.00
18005	00066	NTN DRIVESHAFT, INC.	0.01	0.01	0.07
18005	00067	DSE, INC. DBA SCREEN TECH DESIGNS, INC.			0.02
18005	00068	VENTRA CORPORATION	0.00	0.00	0.02
18005	00080	ARVINMERITOR, INC., TECHNICAL CENTER	0.11	0.03	0.04
18005	00086	BARTHOLOMEW CO. LANDFILL	0.00		0.00
18005	00087	MACTAC	-	-	0.11
18007	00010	SMURFIT STONE CONTAINER CORPORATION			0.01
18007	00014	T G C - AMBIA STATION	0.00	0.00	0.01
18009	00002	BRC RUBBER & PLASTICS, INC.- MONTPELIER	0.00	0.00	0.09
18009	00004	3 M CO. HARTFORD CITY	0.02	0.03	0.19
18009	00008	VENTURE INDUSTRIES (HC)	0.00	0.00	0.05
18009	00018	KEY PLASTICS L.L.C.	0.00	0.01	0.08
18009	00023	INDIANA VENEER PRODUCT DIV. OF HARRIS-TA	0.08	0.03	0.05
18011	00004	MARATHON ASHLAND PIPE LINE - LEBANON STA			0.01
18011	00037	HENDRICKSON TRAILER SUSPENSION SYSTEMS			0.01
18015	00011	GLOBE VALVE CORP	0.01	0.01	0.02
18015	00021	PETERS REVINGTON FURNITURE			1.43
18017	00004	LOGANSPOUT STATE HOSPITAL	0.01	0.00	0.00
18017	00005	ESSROC CEMENT CORP.	5.21	4.65	0.19
18017	00006	LOGANSPOUT MUNICIPAL LIGHT & POWER	0.94	2.08	0.01
18017	00014	TRELLEBORG AUTOMOTIVE	0.00	0.00	0.60
18017	00021	CARLISLE INDUSTRIAL BRAKE AND FRICTION	0.01	0.01	0.25
18017	00027	TEXTRON FASTENING SYSTEMS, PSD			0.08
18017	00028	COLE HARDWOOD	0.03	0.01	0.00
18017	00033	TRANSCO RAILWAY PRODUCTS, INC.			0.02
18017	00034	TYSON FRESH MEATS, INC.	0.06	0.08	0.03
18017	00035	OAK RIDGE RECYCLING & DISPOSAL FACILITY	0.02	0.00	0.01

FIPS	State ID	Facility Name	CO	NOX	VOC
18019	00002	FLEXCEL - BORDEN	0.00	0.01	0.36
18019	00003	COLGATE-PALMOLIVE	0.03	0.04	0.06
18019	00006	JEFFBOAT			0.25
18019	00007	KITCHEN KOMPACT INC			2.53
18019	00008	ESSROC CEMENT CORP.	4.75	4.62	0.18
18019	00009	INDIANA ARMY AMMUNITION PLANT	0.00	0.00	0.00
18019	00012	MARATHON ASHLAND PET., CLARKSVILLE TERM.			0.09
18019	00015	ALTEC, L.L.C.	0.01	0.01	0.05
18019	00016	HAAS CABINET CO. INC.			0.56
18019	00018	THE PQ CORPORATION	0.03	0.29	0.01
18019	00019	HORIZON TERRA, INC.			0.09
18019	00041	ADPLEX-RHODES, INC.	0.00	0.01	0.05
18019	00043	CLARK MEMORIAL HOSPITAL	0.00	0.00	0.00
18019	00046	GEORGE PFAUS SONS COMPANY, INC.	0.01	0.01	0.00
18019	00049	APOLLO AMERICA CORP.	0.00	0.00	0.00
18019	00050	THE DALLAS GROUP OF AMERICA	0.01	0.01	0.00
18019	00054	VOSS INDUSTRIES DBA PGP CORPORATION	0.01	0.01	0.00
18019	00071	KOETTER WOODWORKING, INC.			0.10
18019	00075	G.F. MUNICH WELDING			0.02
18019	00079	KOETTER WOODWORKING INC.	0.03	0.02	0.01
18019	00080	ORICA USA INC.	0.00	0.00	0.00
18019	00088	CARMAN INDUSTRIES INC.			0.00
18019	00094	INDIANA AMERICAN WATER CO., INC.	0.00	0.00	0.00
18019	00095	INDIANA AMERICAN WATER CO., INC.	0.00	0.00	0.00
18019	00097	CLARK-FLOYD LANDFILL			0.00
18019	00103	D.A. INC.			0.06
18019	00104	TANCO CLARK MARITIME, L.L.C.	0.00	0.00	0.00
18019	00105	JEFFERSON YACHTS			0.01
18019	01332	RIETH-RILEY1332 PORTABLE CONCRETE PLANT	0.01	0.03	0.00
18019	03109	SELLERSBURG STONE CO.	0.06	0.03	0.05
18019	03321	ASPHALT SUPPLY CO., INC.	0.00	0.05	0.00
18019	05191	FORMER DAIRY MART STORES #173			0.00
18021	00008	GREAT DANE TRAILERS			0.27
18023	00011	ADM FRANKFORT	0.09	0.11	0.81
18023	00020	FRITO-LAY, INC.	0.14	0.29	0.00
18023	00021	THE KAY COMPANY, INC.			0.22
18023	00024	DONALDSON COMPANY, INC.			0.15
18023	00026	SONOCO CRELLIN			0.16
18027	00006	RESCAR INDUSTRIES, INC.			0.00
18027	00046	GRAIN PROCESSING CORPORATION	0.17	0.22	0.46
18027	03270	ROGERS GROUP,INC.-WASHINGTON ASPHALT	0.01	0.00	0.00
18029	00001	AURORA CASKET CO INC	0.01	0.01	1.20
18029	00002	AMERICAN ELECTRIC POWER-TANNERS CREEK	1.72	48.24	0.30
18029	00005	PERNOD RICARD USA	0.02	0.55	0.92
18029	00007	ANCHOR GLASS CONTAINER CORPORATION	0.05	1.42	0.03
18029	00008	TEXAS GAS TRANSMISSION - DILLSBORO	0.47	0.39	0.02
18029	00011	AURORA CASKET CO-VANGUARD PLT	0.00	0.00	0.29
18029	00014	TRANS AGG,INC. DBA GIBBCO, INC.	0.00	0.00	0.00
18029	03187	PAUL H. ROHE	0.00	0.01	0.00
18029	03326	DAVE O MARA CONTRACTOR PLANT 2	0.00	0.01	0.01
18031	00001	PRINTPACK INC.	0.01	0.01	1.82

FIPS	State ID	Facility Name	CO	NOX	VOC
18031	00014	VALEO, INC. ENGINE COOLING AUTO. DIV.			0.11
18031	00023	DECATUR HILLS, INC.	0.06	0.00	0.00
18031	03141	HOT MIX INC.	0.00	0.01	0.00
18033	00002	AUBURN FOUNDRY PLANT 1	1.13	0.12	0.36
18033	00013	COOPER TIRE & RUBBER CO., ENG.PROD.DIV	0.01	0.01	0.73
18033	00017	ASHLEY INDUSTRIAL MOLDING, INC.	0.01	0.01	0.39
18033	00019	THERMA-TRU CORPORATION	0.00	0.00	0.16
18033	00022	GUARDIAN INDUSTRIES	0.00	0.00	0.17
18033	00023	RIEKE PACKAGING SYSTEMS	-	-	0.20
18033	00027	NUCOR VULCRAFT GROUP, ST. JOE DIVISION			0.42
18033	00040	FLEETWOOD HOMES OF INDIANA, INC. #55			0.02
18033	00042	AUBURN FOUNDRY PLANT 2		0.00	0.14
18033	00043	STEEL DYNAMICS, INC.	1.56	1.65	0.23
18033	00044	DURA AUTOMOTIVE SYSTEMS, BUTLER JACK OPS			0.12
18033	00046	PARAGON PLASTICS, L.L.C.			0.00
18033	00047	FOAMEX L.P.	0.02	0.01	0.06
18033	00055	API CONSTRUCTION CORP.	0.01	0.01	0.01
18033	00072	NEW MILLENNIUM BUILDING SYSTEMS, LLC			0.60
18035	00002	BALL STATE UNIV	0.14	0.18	0.00
18035	00009	JEFFERSON SMURFIT CORPORATION	-	-	0.52
18035	00015	MANUAL TRANSMISSIONS OF MUNCIE LLC	0.07	0.09	0.17
18035	00020	BORGWARNER DTP INC.	0.21	0.03	0.07
18035	00041	ROCK-TENN COMPANY	0.04	0.05	0.01
18035	00046	ARROWHEAD PLASTIC ENGINEERING, INC.			0.05
18037	00002	JASPER MUNICIPAL ELECTRIC UTILITY	0.31	0.69	0.00
18037	00005	JASPER CHAIR CO	0.01	0.00	0.13
18037	00006	JASPER CORPORATION	-	-	-
18037	00007	JASPER DESK COMPANY, INC.	0.01	0.00	0.12
18037	00010	JASPER SEATING CO	0.01	0.00	0.51
18037	00012	INWOOD OFFICE FURNITURE			0.18
18037	00015	MASTERBRAND CABINETS PLANT #2 & #3A	0.00	0.00	0.84
18037	00016	DMI FURNITURE	0.00	0.00	0.24
18037	00017	JASPER SEATING COMPANY - FERDINAND	-	-	0.08
18037	00023	DUBOIS WOOD PRODUCTS, INC	0.00	0.00	0.12
18037	00028	INDIANA DESK-DUBOIS	0.00	0.00	0.23
18037	00031	ANR PIPELINE CELESTINE STATION	0.00	0.11	0.01
18037	00048	F-JASPER 11TH AVE	0.03	0.01	0.24
18037	00051	MASTERBRAND CABINETS, INC. PLANT 4/22	0.00	0.00	2.08
18037	00052	MASTERBRAND PLANT #3	0.00	0.00	0.83
18037	00058	DMI FURNITURE			0.04
18037	00071	WOODMASTER, INC.	0.00	0.00	0.36
18037	00081	MOBEL, INC	0.00	0.00	0.47
18037	00085	KIMBALL INTERNATIONAL COMBO 37-30,50,53*			0.14
18037	00089	JASPER ENGINE EXCHANGE, INC.	0.03	0.21	0.14
18037	00100	KIMBALL INTERNATIONAL*	0.30	0.04	0.90
18037	00102	Styline Industries	0.03	0.00	0.46
18037	00104	INDIANA FURNITURE INDUSTRIES *	0.00	0.00	0.04
18037	00107	JOFCO PLT 1 & 2 COMBO (037-9 & 24)*	0.01	0.01	0.32
18039	00001	MASTER FAB INC.			0.21
18039	00002	OWENS CORNING FABRICATING SOLUTIONS			1.27
18039	00005	CANA INC.			0.56

FIPS	State ID	Facility Name	CO	NOX	VOC
18039	00009	BAYER HEALTHCARE LLC	0.04	0.12	0.01
18039	00010	CONN-SELMER, INC., VINCENT BACH DIVISION	-	-	0.01
18039	00011	STARCRAFT BUS & MOBILITY, DIV FR	0.00	0.00	0.28
18039	00012	VITCO INC	0.01	0.01	0.00
18039	00014	HOME-CREST CORPORATION	-	-	1.03
18039	00017	MONACO COACH CORPORATION - WAKARUSA	0.00	0.00	1.13
18039	00018	JOHNSON CONTROLS, INC.	0.00	0.00	0.01
18039	00027	PARKER HANNIFIN	0.00	0.00	0.01
18039	00030	H.B. FULLER CO	0.00	0.00	0.03
18039	00035	LOUISIANA-PACIFIC CORP.			0.08
18039	00036	ELKHART PRODUCTS CORPORATION	0.00	0.00	0.00
18039	00039	FOREST RIVER, INC. CEDAR CREEK DIVISION	0.00	0.00	0.02
18039	00050	APG, INC			0.00
18039	00051	ELKHART FOUNDRY & MACHINE CO., INC.		0.00	0.00
18039	00055	FLEXIBLE FOAM PRODUCTS, INC.			0.04
18039	00058	BY-PASS PAINT SHOP INC			0.02
18039	00062	COACHMEN RECREATIONAL VEHICLE CO.,LLC			0.20
18039	00063	CTS CORPORATION AUTOMOTIVE PRODUCTS	0.00	0.00	0.00
18039	00065	PRODESIGN COMPOSITES			0.07
18039	00066	SYNDICATE SYSTEMS, INC.	0.01	0.01	0.00
18039	00067	MILLENNIUM PRODUCTS, INC.			0.13
18039	00069	ANCO PRODUCTS, INCORPORATED			0.01
18039	00070	PHILIPS PRODUCTS/VENTLINE DIV	0.00	0.00	0.01
18039	00072	ELKHART BRASS MANUFACTURING CO. INC.	0.02	0.00	0.01
18039	00073	SMOKER-CRAFT INC			0.25
18039	00076	20TH CENTURY FIBERGLASS	0.00	0.00	0.54
18039	00077	GASKA TAPE, INC.		0.00	0.37
18039	00081	BISON MANUFACTURING			0.06
18039	00082	PATRICK INDUSTRIES			0.25
18039	00086	CARPENTER CO.	0.00	0.00	0.00
18039	00087	MONACO COACH CORPORATION NAPPANEE WOOD			0.32
18039	00094	FOUR SEASONS HOUSING	-	-	0.03
18039	00096	UNITED EXPRESSLINE, INC.	0.00	0.01	0.16
18039	00097	TRUCK ACCESSORIES GROUP DBA LEER MIDWEST	0.00	0.00	0.52
18039	00098	BENNINGTON MARINE CORP.			0.01
18039	00099	EFP, CORP	0.01	0.01	0.11
18039	00103	SUPREME CORPORATION	0.00	0.00	0.36
18039	00104	JASON INDUSTRIES, INC.			0.33
18039	00105	PATRIOT HOMES INC.			0.05
18039	00109	20TH CENTURY FIBERGLASS PLANT #4	0.00	0.00	0.09
18039	00110	RANCH FIBERGLAS, INC.	-	-	0.16
18039	00118	ELKHART GENERAL HOSPITAL	0.00	0.00	0.00
18039	00122	THE ART OF DESIGN, INC.	0.00	0.00	0.01
18039	00126	GLAVAL CORPORATION			0.02
18039	00130	VENTURE WELDING, INC.	0.00	0.00	0.21
18039	00135	DADON CORP DBA MERHOW INDUSTRIES			0.00
18039	00137	COVERMASTER, INC.			0.35
18039	00141	BETTER WAY PRODUCTS, INC.			0.83
18039	00145	GULF STREAM COACH, INC.	0.00	0.00	0.18
18039	00147	EPS, INC. D/B/A VALSPAR COATINGS			0.02
18039	00152	FIBER-TRON, INC.	-		0.03

FIPS	State ID	Facility Name	CO	NOX	VOC
18039	00154	EK BLESSINGS COMPANY, INC.	0.00	0.00	0.02
18039	00155	MILLER DOOR & TRIM INC	0.00	0.00	0.12
18039	00157	NEWMAR CORPORATION			0.62
18039	00166	BECK INDUSTRIES	0.00	0.00	0.25
18039	00170	ET AND T FRAMES, INC.	0.00	0.01	0.12
18039	00172	DOORS PLUS, INC.	0.00	0.00	0.17
18039	00174	NICKELL MOULDING CO., INC.			0.10
18039	00177	STEELCASE, INC., STOW DAVIS DIV.	0.00	0.00	0.17
18039	00178	ROBERT WEED PLYWOOD CORPORATION			0.05
18039	00182	MONACO COACH CORPORATION-ELKHART			0.42
18039	00185	VENTURE WELDING	0.00	0.00	0.00
18039	00187	ENVIRONMENTAL TEST SYSTEMS, INC			0.01
18039	00188	ALTEC ENGINEERING, INC.	0.00	0.00	0.13
18039	00189	DOORS AND DRAWERS, INC.			0.02
18039	00191	HAYES LEMMERZ INTERNATIONAL - BRISTOL	0.04	0.09	0.05
18039	00192	CONSOLIDATED LEISURE INDUSTRIES, LLC			0.08
18039	00195	D&W INC.	0.00	0.00	0.05
18039	00198	SUPERIOR LAMINATING, INC.	0.00	0.00	0.01
18039	00200	ACCRA FORM COMPOSITES			0.03
18039	00206	M AND M FABRICATORS CORPORATION	0.00	0.00	0.01
18039	00215	QUALITY FRAMES, INC	0.00	0.00	0.02
18039	00220	FOUR WINDS INTERNATIONAL CORPORATION	0.00	0.00	0.15
18039	00229	LITHOTONE	0.00	0.00	0.05
18039	00230	CREATION WINDOWS	0.00	0.00	0.08
18039	00235	HULL LIFT TRUCK, INCORPORATED			0.02
18039	00242	BAYER HEALTHCARE LLC	0.00	0.00	0.03
18039	00245	MIDDLEBURY HARDWOOD PRODUCTS, INC.			0.45
18039	00246	CROWN AUDIO, INC.			0.01
18039	00248	ELPACO COATINGS CORPORATION	0.00	0.00	0.10
18039	00249	GOSHEN STAMPING COMPANY, INC.	0.00	0.00	0.00
18039	00251	BULL MOOSE TUBE COMPANY, INC			0.01
18039	00253	HAULMARK INDUSTRIES, INC.			0.02
18039	00254	HAULMARK INDUSTRIES, INC.			0.28
18039	00255	AMERICAN CARGO CORPORATION	0.00	0.00	0.04
18039	00257	IMPRESSIONS, INC.	0.00	0.00	0.01
18039	00258	WIELAND DESIGN, INC.	0.00	0.00	0.02
18039	00265	JAYCO INC. (00265)			0.26
18039	00267	GODFREY CONVEYOR COMPANY INC.			0.34
18039	00268	FLEXSTEEL INDUSTRIES, INC.	0.00	0.00	0.00
18039	00269	TRUTH PUBLISHING COMPANY, INC.			0.00
18039	00271	WALTER PIANO COMPANY, INC.			0.05
18039	00272	PACE AMERICAN	0.03	0.03	0.12
18039	00273	HERR CUSTOM PAINTING	0.00	0.00	0.05
18039	00274	ELKHART COUNTY LANDFILL	0.07	0.00	0.00
18039	00276	CUSTOM WOODCRAFT, INC.	0.00	0.00	0.03
18039	00277	MARK LINE INDUSTRIES			0.01
18039	00282	MOULDING DIVISION OF ROBERT WEED PLYWOOD	0.00	0.00	0.21
18039	00283	WELLS CARGO, INC.			0.11
18039	00285	DAMON CORPORATION-BRECKENRIDGE DIV.			0.02
18039	00295	FOREST RIVER INC, CARDINAL DIVISION	0.01	0.01	0.08
18039	00296	SPECIALIZED WOOD PRODUCTS			0.11

FIPS	State ID	Facility Name	CO	NOX	VOC
18039	00297	PRESTIGIOUS PRINTING	0.00	0.00	0.01
18039	00299	NORTH AMERICAN MOULDING, INC.	0.00	0.00	0.01
18039	00302	FOAMEX			0.00
18039	00306	SKYLINE CORPORATION- PLT 616			0.02
18039	00307	SKYLINE CORPORATION- PLT 812			0.02
18039	00308	SKYLINE CORPORATION- PLT 111			0.01
18039	00309	LIPPERT COMPONENTS, INC.			0.06
18039	00310	SKYLINE CORPORATION- PLT 112			0.01
18039	00318	HARTSON KENNEDY CABINET TOP COMPANY, INC			0.36
18039	00320	PRODESIGN PAINT PLANT 820			0.04
18039	00324	ADORN, L.L.C.	0.00	0.00	0.78
18039	00326	CARRERA DESIGNS - PLANT 1	0.00	0.00	0.14
18039	00327	AMERICAN MILLWORK	0.00	0.00	0.01
18039	00332	EZ LOADER	0.00	0.00	0.00
18039	00336	PREMIER FIBERGLASS			0.02
18039	00337	J.E.J. MOULDING	-		0.02
18039	00338	DAIRY FARMERS OF AMERICA	0.03	0.03	0.00
18039	00343	T.P.C. & COMPANY, INC.	0.00	0.00	0.01
18039	00349	MONOGRAM CONVERSIONS, INC.	-		0.04
18039	00350	CONQUEST MINI-HOMES/GULFSTREAM COACH,	-		0.05
18039	00353	VICTORIAN HOMES			0.02
18039	00362	WEVAC PLASTICS CORPORATION, LLC.			0.09
18039	00363	KEYSTONE RV COMPANY			0.16
18039	00364	AUTOSPORT PAINTED ACCESSORIES	-	-	0.02
18039	00370	BFI WASTE SYSTEMS			0.00
18039	00373	OMEGA INDUSTRIES, INC.			0.09
18039	00376	DUTCHMEN MFG. - 376	0.00	0.00	0.13
18039	00377	DUTCHMENT MFG. - MIDDLEBURY	0.00	0.00	0.11
18039	00379	BEHLEN MANUFACTURING COMPANY	0.01	0.01	0.00
18039	00380	DUTCHMEN MFG. - 380	0.00	0.00	0.08
18039	00393	R D FINISHING, INC.			0.00
18039	00395	COPPE'S CABINETS	0.00	0.00	0.01
18039	00400	BRISTOL LAMINATING, INC.	0.00	0.00	0.01
18039	00402	R AND R CUSTOM WOODWORKING, INC.	0.00	0.01	0.06
18039	00407	DAMON COPORATION PLANTS 1,2,3 AND 9	0.00	0.00	0.07
18039	00415	BTC CABINET			0.01
18039	00416	ROYAL COACH, DIVISION OF MONACO COACH CO			0.01
18039	00423	SWARTZENDRUBER HARDWOOD CREATIONS, LLC			0.02
18039	00424	VAHALA FOAM, INC.	0.00	0.00	0.06
18039	00427	CHEM TECH, INC.			0.01
18039	00433	MILLER'S WOOD-N-THINGS	0.00	0.00	0.01
18039	00434	ACCRA PAC, INC.			0.28
18039	00437	HOOSIER WOOD CREATIONS, INC..	0.00	0.00	0.05
18039	00443	THE COMMODORE CORPORATION			0.04
18039	00444	SUNNYBROOK RV, INC.	0.00	0.00	0.11
18039	00448	INDEPENDENT PROTECTION COMPANY, INC			0.07
18039	00454	COULTER & SON, INC.			0.04
18039	00455	DEXTER AXLE CO.	0.00	0.00	0.04
18039	00456	CARRIAGE, INC. COMBO 039-179&039-00205	0.00	0.00	0.06
18039	00458	FOUR SEASONS HOUSING INC			0.05
18039	00460	NATIVE HARDWOODS INC.			0.10

FIPS	State ID	Facility Name	CO	NOX	VOC
18039	00461	EARTHMOVERS LANDFILL	0.08	0.04	0.01
18039	00468	CRYSTAL VALLEY HOMES			0.02
18039	00469	FOREST RIVER, INC	0.01	0.01	0.06
18039	00470	FOREST RIVER, INC	0.00	0.00	0.01
18039	00471	FOREST RIVER, INC	-	-	0.05
18039	00472	MICA SHOP, INC.			0.05
18039	00481	CMG, INC.	0.00	0.00	0.02
18039	00483	NU-WOOD COMPANY			0.03
18039	00487	SUPERIOR2 SOLVENTS AND CHEMICALS, INC.			0.01
18039	00489	INDIANA BUILDING SYSTEMS, L.L.C.			0.18
18039	00491	ODYSSEY BOAT DIVISION	0.00	0.00	0.00
18039	00493	GLOBAL GLASS INC.			0.42
18039	00498	VENTURE TECHNOLOGIES, LLC	0.00	0.00	0.05
18039	00499	J AND L CARGO EXPRESS, INC.			0.10
18039	00504	ALPHA SYSTEMS, INC.	0.00	0.00	0.06
18039	00505	DUTCH MILLS			0.03
18039	00508	VSV GROUP DBA MCCOY MILLER/GOSHEN COACH			0.15
18039	00509	FAIRMONT & KUSTOM (COMBO 039-00334&219)	0.00	0.00	0.46
18039	00510	CARGOMATE/CONTINENTAL CARGO/WEHAUL	0.00	0.00	0.04
18039	00514	COACHMEN REC. VEHICLE PLANT NO.900			0.04
18039	00518	KOUNTRY WOOD PRODUCTS, L.L.C.			0.18
18039	00519	ALTEC ENGINEERING, LLC			0.05
18039	00528	JAYCO, INC.(00528)			0.05
18039	00530	UTILIMASTER CORPORATION	0.00	0.00	0.15
18039	00531	EMTEC COMPOSITES, INC.			0.03
18039	00532	ROADMASTER, LLC	0.00	0.00	0.04
18039	00534	LIPPERT COMPONENTS, INC.			0.00
18039	00536	DYNAMAX CORPORATION			0.04
18039	00537	SCHMIDT FURNITURE AND MUSIC, LLC			0.00
18039	00538	VIM RECYCLING	0.02	0.07	0.01
18039	00542	PERFORMANCE PAINTING			0.15
18039	00543	HOOSIER HOUSE FURNITURE, INC.	0.00	0.00	0.00
18039	00548	NORFOLK SOUTHERN RAILWAY COMPANY	0.00	0.01	0.00
18039	00550	STOUTCO, INC.			0.03
18039	00551	MEDTEC AMBULANCE CORPORATION (MEDTEC)	0.00	0.00	0.03
18039	00552	SUPERIOR ENVIRONMENTAL REMEDIATION, INC.			0.01
18039	00554	FOREST RIVER, INC. WILDCAT DIVISION	0.00	0.00	0.02
18039	00556	NOBLE COMPOSITES, INC.	0.00	0.00	0.47
18039	00557	DELIVERY CONCEPTS, INCORPORATED			0.01
18039	00559	FINAL FINISH, LLC	0.00	0.00	0.01
18039	00560	KEYSTONE RV COMPANY			0.01
18039	00561	D & S INDUSTRIES	0.00	0.00	0.02
18039	00570	ORBIT COMPOSITES & BETTER WAY PRODUCTS			0.02
18039	03173	RIETH-RILEY3173 ASPHALT PLANT #375	0.01	0.03	0.00
18039	03296	NIBLOCK EXCAVATING	0.02	0.02	0.04
18041	00004	VISTEON SYSTEMS, LLC	0.02	0.02	0.17
18041	00009	PSI - ENERGY CONNERSVILLE PEAKING STA.	0.00	0.00	0.00
18041	00012	C.P. INCORPORATED			0.09
18041	00015	RECLAIMED ENERGY COMPANY, INC.	0.00	0.00	0.02
18043	00004	PSI ENERGY - GALLAGHER	1.27	21.93	0.18
18043	00010	TRANSMONTAIGNE TERMINAL INC.			0.02

FIPS	State ID	Facility Name	CO	NOX	VOC
18043	00012	FLINT INK NORTH AMERICA CORPORATION	0.00	0.00	0.12
18043	00014	FOAM FABRICATORS, INC.	0.00	0.01	0.37
18043	00016	FLOYD MEMORIAL HOSPITAL AND HEALTH SERVS	0.01	0.01	0.00
18043	00023	HITACHI CABLE INDIANA, INC.	0.00	0.00	0.00
18043	00024	CAMEO MARBLE	0.00	0.00	0.13
18043	00026	FIREKING INTERNATIONAL, INC.	0.01	0.01	0.00
18043	00029	PRINT XCEL DBA DISCOUNT LABELS			0.09
18043	00035	BRUCE FOX, INC.			0.03
18043	00039	PRODUCT SPECIALTIES			0.09
18043	00043	FIRE KING SECURITY PRODUCTS, LLC			0.02
18043	00049	PADGETT, INC.			0.02
18043	00050	GENERAL MILLS	0.01	0.01	0.00
18043	00053	W. M. KELLEY COMPANY, INC.			0.02
18045	00001	FOUNTAIN FOUNDRY	-	0.00	0.01
18045	00002	HARRISON STEEL CASTING	0.00	0.02	0.02
18045	00011	MASTER GUARD CORP.	0.01	0.01	0.85
18047	05211	DAVE O MARA CONTRACTOR PLANT 5	0.01	0.03	0.01
18049	00001	AKRON FOUNDRY, INC.		0.00	0.01
18049	00002	ROCHESTER METAL PRODUCTS CORP.		0.00	0.11
18049	00018	TOPP INDUSTRIES, INC.	-	-	0.06
18049	00027	OLYMPIC FIBERGLASS INDUSTRIES			0.09
18049	00029	COUNTY LINE LANDFILL	0.04	0.02	0.01
18051	00007	TEPPCO PRINCETON TERMINAL	0.00	0.00	0.04
18051	00013	PSI ENERGY - GIBSON	6.88	132.38	0.83
18051	00021	MID-STATES RUBBER PRODUCTS, INC.	0.00	0.01	0.03
18051	00037	TOYOTA MOTOR MANUFACTURING OF INDIANA	0.04	0.12	3.03
18053	00004	MFD MARION PLANT	0.02	0.03	0.00
18053	00020	THOMSON MULTIMEDIA, INC.	1.03	0.09	0.26
18053	00032	HARTSON-KENNEDY CABINET TOP COMPANY, INC			0.93
18053	00040	TETCO - GAS CITY STATION	0.24	0.46	0.13
18053	00058	AMERICAN WOODMARK	0.01	0.01	0.78
18055	00003	COUNTRYMARK COOPERATIVE, INC.			0.47
18055	00008	GRIFFIN INDUSTRIES, INC. - NEWBERRY	0.20	0.19	0.00
18055	00034	WORTHINGTON GENERATION LLC	0.47	0.45	0.02
18055	03293	ROGERS GROUP,INC.-GREENE CO. ASPHALT	0.07	0.00	0.02
18055	05166	RIETH-RILEY5166 PORTABLE ASPHALT PLANT #	0.01	0.04	0.00
18057	00002	INDIANA DUCTILE LLC		0.00	0.00
18057	00004	PSI ENERGY-NOBLESVILLE	0.17	6.57	0.02
18057	00006	FIRESTONE INDUSTRIAL PRODUCTS	0.03	0.10	0.28
18057	00008	COUNTRYMARK COOPERATIVE, INC.			0.04
18057	00042	INDUSTRIAL DIELECTRICS, INC.			0.15
18057	03300	MAR-ZANE PLANT #18	0.27	0.02	0.01
18057	05204	PRAIRIE GROUP - PLANT 79	-	-	-
18059	00002	ROLL COATER INC.	0.05	0.06	0.28
18059	00009	KEMIRA CHEMICALS, INC.	0.00	0.01	0.00
18059	00018	AVERY DENNISON-FASSON ROLL DIVISION	0.03	0.03	0.30
18059	00023	VACUMET CORP., METALLIZED PAPER DIVISION	0.02	0.02	0.06
18059	00026	MONROE CUSTOM UTILITY BODIES			0.02
18061	00001	KELLER MANUFACTURING CO., INC.	0.01	0.01	0.15
18061	00011	SCHMIDT CABINET COMPANY, INC.			0.10
18061	00012	DARAMIC, INC.	0.01	0.01	0.00

FIPS	State ID	Facility Name	CO	NOX	VOC
18061	00013	KELLER MFG. CO., INC. - NEW SALISBURY	0.01	0.00	0.16
18063	00007	CENTER TERMINAL COMPANY			0.06
18063	00029	TWIN BRIDGES RECYCLING & DISPOSAL FACIL	0.01	0.00	0.00
18063	00047	PHOENIX FABRICATOR AND ERECTORS			0.05
18065	00003	AVESTAPOLARIT INC. PLATE PRODUCTS	0.03	0.23	0.00
18065	00007	GREDE NEW CASTLE, INC.	0.01	0.01	0.27
18065	00014	ALLEGHENY LUDLUM CORPORATION	0.06	0.59	0.20
18065	00019	ANR PIPELINE CO. SULPHUR SPRINGS STATION	0.08	0.07	0.06
18065	00032	CINCAP VII, LLC	0.05	0.29	0.01
18065	00035	HENRY COUNTY HOSPITAL	0.00	0.00	0.00
18065	00036	HAYES LANDFILL, INC.			0.01
18067	00002	DAIMLERCHRYSLER KOKOMO CASTING PLANT	0.07	0.09	0.01
18067	00003	DAIMLERCHRYSLER CORP TRANSMISSION PLANT	0.46	0.38	0.12
18067	00009	HAYNES INTERNATIONAL, INC.	0.11	0.18	0.01
18067	00058	DAIMLERCHRYSLER INDIANA TRANSMISSION PLT	0.22	0.02	0.01
18067	00061	DELPHI DELCO ELECTRONICS SYSTEMS	0.04	0.04	0.29
18069	00012	SUNOCO PARTNERS MARKETING & TERMINALS LP			0.23
18069	00013	MAJESTIC PRODUCTS COMPANY			0.05
18069	00018	KEN-KOAT, INC.	0.00	0.00	0.24
18069	00021	US MINERAL PRODUCTS COMPANY	17.70	0.11	0.05
18069	00031	HAYES LEMMERZ INTERNATIONAL	0.06	0.08	0.07
18069	00043	MERIDIAN AUTOMOTIVE SYSTEMS-HUNTINGTON	0.02	0.01	0.19
18069	00059	PRINT SUPPORT INC/MIGNONE COMMUNICATIONS			0.01
18071	00006	VALEO SYLVANIA, LLC	0.00	0.01	0.13
18071	00007	TE PRODUCTS PIPELINE CO.,LMTD PRTRNSHP	-	-	0.09
18071	00015	CUMMINS ENGINE CO	0.10	0.50	0.04
18071	00016	KOBELCO METAL POWDER OF AMERICA, INC.	0.42	0.04	0.01
18071	00017	AISIN USA MFG., INC.	0.01	0.01	0.08
18071	00023	SCHWARZ PHARMA MFG.,INC.	0.00	0.04	0.08
18071	00034	LA GLORIA OIL AND GAS/CROWN CENTRAL PET.			0.67
18071	00036	HOME PRODUCTS INTERNATIONAL, INC. COMBO	0.01	0.01	0.62
18071	03117	DAVE O MARA CONTRACTOR PLANT 4	0.00	0.01	0.01
18071	03180	ONYX PAVING COMPANY, INC.	0.00	0.00	0.00
18073	00001	SAINT JOSEPHS COLLEGE	0.00	0.00	0.00
18073	00008	NIPSCO - R.M. SCHAHFER	3.76	53.69	0.52
18073	00011	SOLAE L.L.C.- REMINGTON IN	0.06	0.06	0.03
18073	00020	CITY LIGHT PLANT	0.00	0.00	0.00
18073	00025	TALBERT MFG.	0.00	0.00	0.12
18073	00031	G-P GYPSUM, WHEATFIELD INDIANA	0.08	0.12	0.07
18073	05148	JASPER COUNTY HIGHWAY DEPT.	0.00	0.00	0.00
18075	00003	INDIANA GLASS COMPANY	0.04	0.24	0.02
18075	00004	SAINT-GOBAIN CONTAINERS, INC.	0.09	0.43	0.09
18075	00005	VENTURE INDUSTRIES (PORTLAND)	0.00	0.00	0.01
18075	00012	ANR PIPELINE CO PORTLAND STATION	0.00	0.01	0.00
18075	00017	W & M MFG.,INC.	0.00	0.00	0.18
18075	00023	PATRIOT PAINT CO., INC.	0.00	0.00	0.04
18075	00029	JAY COUNTY LANDFILL	0.01	0.00	0.01
18077	00001	IKEC - CLIFTY CREEK STATION	3.01	83.36	0.42
18077	00003	GROTE INDUSTRIES, LLC			0.10
18077	00007	ARMOR METAL GROUP			0.19
18077	00008	MADISON STATE HOSPITAL	0.01	0.01	0.00

FIPS	State ID	Facility Name	CO	NOX	VOC
18077	00010	USF/ENVIREX PRODUCTS			0.07
18077	00011	ROTARY LIFT/ A DOVER INDUSTRIES COMPANY			0.17
18079	00002	MUSCATATUCK STATE HOSPITAL & TRAINING	5.83	27.96	0.40
18079	00010	ERLER INDUSTRIES, INC.	-	-	0.75
18079	00014	METALDYNE SINTERED COMPONENTS	0.06	0.05	
18079	00019	PLASFINCO			0.03
18079	03181	DAVE O MARA CONTRACTOR PLANT 1	0.00	0.02	0.00
18081	00005	SONOCO FLEXIBLE PACKAGING	0.02	0.02	1.19
18081	00012	LEAR CORPORATION EEDS & INTERIORS			0.06
18081	00021	ESSEX GROUP, INC.	-	-	0.11
18083	00003	PSI ENERGY-EDWARDSPORT	0.22	7.43	0.03
18083	00008	ESSEX GROUP, INC.	0.05	0.11	1.49
18083	00027	GOOD SAMARITAN HOSPITAL	0.01	0.01	0.00
18083	00041	WHEATLAND GENERATING FACILITIES	0.32	1.10	0.03
18083	03185	ROGERS GROUP,INC.-VINCENNES ASPHALT	0.05	0.00	0.02
18085	00002	DA-LITE SCREEN COMPANY, INC.	0.00	0.00	0.60
18085	00003	DALTON CORPORATION WARSAW MANUFACTURING	3.28	0.11	0.69
18085	00009	R.R. DONNELLEY & SONS COMPANY	0.04	0.05	0.73
18085	00012	PAR-KAN COMP.	0.00	0.00	0.07
18085	00031	RINKER BOAT COMPANY, INC.			0.54
18085	00037	FLINT INK NORTH AMERICA CORPORATION			0.24
18085	00051	MARBLE CREATIONS			0.04
18085	00067	AERO COACH (DUTCHMEN)			0.05
18085	00070	FRONTLINE MFG.			0.06
18085	00074	EXPLORER VAN COMPANY			0.14
18085	00077	FRONTLINE MANUFACTURING			0.44
18087	00004	ANR PIPELINE CO. LAGRANGE STATION	0.27	2.04	0.37
18087	00007	STARCRAFT RV	0.06	0.01	0.05
18087	00012	STARCRAFT MARINE, LLC			0.30
18087	00018	VENTURE WELDING (HOWE)	0.00	0.00	0.35
18087	00019	JAYCO, INC.(00019)	0.00	0.00	0.01
18087	00023	PALLETONE OF INDIANA, INC,	0.07	0.03	0.00
18087	00031	NISHAKAWA STANDARD	0.00	0.01	0.14
18087	00036	FOUR WOODS LAMINATING	0.05	0.21	0.24
18087	00047	MIDWEST MOLDING, INC.	0.00	0.00	0.01
18087	00051	H.R.O., INC.			0.03
18089	00001	TRANSMONTAIGNE PIPELINE			0.00
18089	00003	BP PRODUCTS NORTH AMERICA INC, WHITING R	12.57	31.00	4.12
18089	00013	RIETER AUTOMOTIVE NORTH AMERICA	0.03	0.03	0.02
18089	00020	AMERICAN CHEMICAL SERVICE, INC.	0.00	0.01	0.04
18089	00053	MARATHON AHSLAND PIPELINE-GRIFFITH EAST	-	-	0.00
18089	00059	ENBRIDGE ENERGY, LIMITED PARTNERSHIP			0.11
18089	00062	AVERY DENNISON-DECORATIVE FILM DIVISION	0.03	0.04	0.10
18089	00069	ANR PIPELINE NAT GAS_CO-ST. JOHN STATION	1.22	4.23	0.48
18089	00072	MARATHON ASHLAND PIPE LINE-GRIFFITH STAT			0.23
18089	00075	VESUVIUS USA	0.00	0.00	0.00
18089	00076	BP CHEMICAL COMPANY	0.01	0.01	0.02
18089	00081	ENBRIDGE ENERGY, LIMITED PARTNERSHIP			0.31
18089	00090	MUNSTER STEEL			0.02
18089	00093	CARB-RITE COMPANY	0.02	0.02	0.00
18089	00094	MASON CORPORATION	0.02	0.02	0.02

FIPS	State ID	Facility Name	CO	NOX	VOC
18089	00096	MIDWEST PIPE COATING	0.00	0.01	0.05
18089	00100	BLASTTECH, INC			0.00
18089	00105	A. P. GREEN REFRACTORIES CO. INC.	0.00	0.00	0.00
18089	00106	SCA TISSUE NORTH AMERICA, LLC	0.03	0.04	0.03
18089	00107	REED MINERALS DIV.	0.01	0.01	0.00
18089	00112	CARMEUSE LIME INCORPORATED	1.11	2.29	0.00
18089	00114	METHODIST HOSPITALS INC	0.00	0.00	0.00
18089	00117	NIPSCO - DEAN H. MITCHELL STATION	0.00	0.03	0.00
18089	00121	U S STEEL CO GARY WORKS	295.98	16.49	6.11
18089	00143	GARY SANITARY LANDFILL	0.07	0.01	0.01
18089	00157	REPUBLIC TECHNOLOGIES INTERNATIONAL	0.01	0.01	0.00
18089	00161	INDUSTRIAL STEEL CONSTRUCTION, INC.	0.01	0.01	0.06
18089	00163	NORTH AMERICAN REFRACTORIES	0.00	0.00	0.00
18089	00164	SMITHS MEDICAL ASD, INC			0.03
18089	00167	STANRAIL NORTH PLANT	0.00	0.00	0.01
18089	00169	GARY COAL PROCESSING	0.03	0.03	0.00
18089	00172	USS - CENTRAL TEAMING COMPANY, INC.	0.00	0.01	0.00
18089	00174	TUBE CITY, INC.	0.00	0.01	0.00
18089	00176	BRADENBURG INDUSTRIAL SERVICE COMPANY	0.00	0.00	0.01
18089	00177	PRAXAIR	0.00	0.00	0.00
18089	00179	BUCKO CONSTRUCTION - 15TH STREET PLANT	0.02	0.03	0.07
18089	00180	KOPPERS INDUSTRIES INC	0.00	0.00	0.01
18089	00201	JUPITER ALUMINUM CORPORATION	0.03	0.17	0.03
18089	00202	SILGAN CONTAINERS CORP	0.01	0.01	0.04
18089	00203	CARGILL, INC.	0.32	0.43	0.24
18089	00204	ASF-KEYSTONE, INC.	0.00	0.01	0.03
18089	00205	BP PRODUCTS N.A. INC- HAMMOND TANK FARM			0.17
18089	00209	SHELL OIL PRODUCTS US HAMMOND TERMINAL			0.05
18089	00210	STATE LINE ENERGY LLC	1.15	22.38	0.21
18089	00214	EXPLORER PIPELINE COMP.			0.07
18089	00218	HALSTAB DIVISION OF HAMMOND GROUP, INC.	0.00	0.00	0.00
18089	00219	HAMMOND GROUP, INC. (HGI)	0.01	0.02	0.00
18089	00220	LASALLE STEEL COMPANY	0.02	0.05	0.00
18089	00222	RESCO PRODUCTS, INC.	0.04	0.01	0.38
18089	00227	KEIL CHEM -FERRO CO	0.01	0.02	0.02
18089	00228	HUHTAMAKI FOODSERVICE INC.	0.05	0.03	0.06
18089	00229	UNILEVER HPC USA	0.04	0.03	0.00
18089	00230	WOLF LAKE TERMINALS, INC.	0.00	0.00	0.01
18089	00231	MARATHON ASHLAND PET., HAMMOND TERMINAL			0.16
18089	00233	EXXON MOBIL CORPORATION - HAMMOND TERM			0.08
18089	00239	SHELL OIL PRODUCTS US EAST CHICAGO TERM			0.18
18089	00242	RHODIA INC.	0.03	0.12	0.03
18089	00244	SAINT MARGARET MERCY HEALTHCARE CENTERS	0.01	0.01	0.00
18089	00247	VERMETTE MACHINE CO., INC.	-	-	0.02
18089	00248	H. A. INDUSTRIES-DIV OF AM CASTLE & CO.	0.05	0.06	0.00
18089	00249	PURDUE UNIVERSITY CALUMET	0.00	0.01	0.00
18089	00253	ARROW UNIFORM RENTAL	0.00	0.02	0.00
18089	00254	VIKING ENGINEERING COMPANY, INC.	0.00	0.00	0.00
18089	00255	POMP'S TIRE SERVICE, INC.			0.02
18089	00262	SAXON METALS	0.00	0.00	0.00
18089	00291	BUCKEYE TERMINALS, LLC - HARTSDALE STAT			0.08

FIPS	State ID	Facility Name	CO	NOX	VOC
18089	00295	DAVIES IMPERIAL COATINGS, INC.			0.05
18089	00298	BAKERY FEEDS	0.00	0.00	0.00
18089	00300	U.S. STEEL - EAST CHICAGO TIN OPERATIONS	0.19	0.09	0.01
18089	00301	SAFETY-KLEEN OIL RECOVERY CO.	0.12	0.30	0.02
18089	00307	CITGO PETROLEUM CORP	-		0.43
18089	00310	W.R. GRACE	0.04	0.05	0.00
18089	00314	GATX RAIL			0.03
18089	00316	ISPAT INLAND INC.	134.12	17.33	4.37
18089	00318	ISG INDIANA HARBOR INC.	16.73	7.36	0.34
18089	00320	BUCKEYE TERMINALS, LLC - EAST CHICAGO ST			0.06
18089	00326	PHILLIPS PIPELINE	0.04	0.01	0.27
18089	00330	PRAXAIR, INC.	0.01	0.06	0.00
18089	00332	UNION TANK CAR COMPANY - PLANT #1	0.02	0.02	0.13
18089	00333	UNITED STATES GYPSUM COMPANY	0.15	0.17	0.01
18089	00341	HECKETT MULTISERV 7 AT ISG STEEL			-
18089	00343	UNION TANK CAR CO/E. CHICAGO LINING FA	0.00	0.00	0.02
18089	00345	POLLUTION CONTROL INDUSTRIES, INC			0.01
18089	00356	BEEMSTERBOER SLAG CORPORATION	0.02	0.10	0.01
18089	00358	EAST CHICAGO RECOVERY, INC.	0.00	0.00	0.00
18089	00360	RJR DRYING	0.01	0.01	0.00
18089	00364	TRANSFLO TERMINAL SERVICES, INC.			0.00
18089	00369	OIL TECHNOLOGY, INC. - ISPAT STEEL PLT#2			0.00
18089	00370	HOOSIER RAILCAR			0.02
18089	00373	ELECTROTEK METALS	0.00	0.00	0.00
18089	00375	OIL TECHNOLOGY, INC. - LTV STEEL PLANT			0.01
18089	00379	ASPHALT CUTBACKS, INC.	0.00	0.00	0.00
18089	00381	PROGRESS RAIL SERVICES CORPORATION	0.00	0.00	0.05
18089	00382	INDIANA HARBOR COKE COMPANY	1.11	2.24	0.01
18089	00406	STANRAIL SOUTH PLANT			0.04
18089	00407	AVERY DENNISON GRAPHICS DIVISION	0.02	0.02	0.03
18089	00426	MUNSTER COMMUNITY HOSPITAL	0.02	0.03	0.00
18089	00435	PRAXAIR INC	0.06	0.06	0.01
18089	00443	SACO INDUSTRIES, INC.			0.07
18089	00448	IRONSIDE ENERGY, LLC	0.00	0.00	0.00
18089	00449	WHITING CLEAN ENERGY, INC.	0.32	0.57	0.03
18089	00453	BP PRODUCTS N.A. INC. - WHITING TERMINAL			0.02
18089	00456	LLOYD'S MOBILE GASOLINE STATION	0.00	0.00	0.01
18089	00458	LAFARGE NORTH AMERICA	0.09	0.02	0.00
18089	00460	CHEMCOATERS	0.00	0.00	0.02
18089	00461	FORMER MARATHON #2318			0.00
18089	00463	NIPSCO VECTOR CROWN POINT PIPELINE HEATE	-	-	-
18089	00464	NIPSCO NORTH HAYDEN PIPELINE HEATER	-	-	-
18089	00465	FRITZ ENTERPRISES INC.	0.01	0.05	0.00
18089	03215	WALSH & KELLY INC.:GRIFFITH PLANT	0.02	0.03	0.01
18089	03226	RIETH-RILEY3226 ASPHALT PLANT #367	0.02	0.02	0.00
18091	00018	CASTING SERVICE	0.01	0.02	0.15
18091	00020	WEIL MCLAIN, A UNITED DOMINION COMPANY	0.00	0.01	0.15
18091	00021	NIPSCO - MICHIGAN CITY	1.14	30.97	0.24
18091	00028	SILIGAN CONTAINERS CORP.	0.02	0.02	0.42
18091	00040	ROLL COATER INC.	0.10	0.12	0.55
18091	00052	AMPCOR II, INC.			0.14

FIPS	State ID	Facility Name	CO	NOX	VOC
18091	00053	CRITERION CATALYST AND TECHNOLOGIES, LP	0.03	0.05	0.00
18091	00061	KSI, LLC	0.00	0.00	0.00
18091	00067	DEERCROFT RECYCLING & DISPOSAL FACIL.	0.35	0.12	0.07
18091	00069	WEISS PRESTAINING INC.	0.00	0.00	0.31
18091	00079	POLYFOAM PACKERS CORPORATION	0.01	0.01	0.31
18091	00104	VITAMINS, INC.			0.28
18091	00106	HOLSUM FT. WAYNE, INC.	0.01	0.01	0.24
18091	00119	SPRINGVILLE COMPRESSOR STATION	0.01	0.11	0.00
18093	00002	LEHIGH CEMENT COMPANY	1.45	10.81	0.24
18093	00007	GM POWERTRAIN BEDFORD FACILITY	0.16	0.19	0.01
18093	00010	MANCHESTER TANK			0.03
18093	00013	TEXAS GAS TRANSMISSION - LEESVILLE	0.00	0.00	0.00
18093	00015	DUNN MEMORIAL HOSPITAL	0.00	0.00	0.00
18093	03287	ROGERS GROUP,INC.-LAWRENCE CO. ASPHALT			0.04
18093	05064	NEWCO METALS PROCESSING	0.01	0.01	0.00
18095	00005	GUIDE CORPORATION	0.03	0.04	0.55
18095	00012	OWENS BROCKWAY GLASS CONTAINER INC.	0.07	0.83	0.05
18095	00016	DELPHI CORPORATION LLC.	0.01	0.01	0.09
18095	00037	ALAC GARMENT SERVICES	0.00	0.01	0.07
18095	00044	PLASTECH	0.00	0.01	0.87
18095	00048	ELSA LLC			0.05
18095	00051	IMPA - ANDERSON STATION	0.38	0.22	0.03
18097	00001	HUBBARD FEEDS INC. FORMERLY CONTI GROUP	0.00	0.00	0.00
18097	00002	AMERICAN ART CLAY CO. INC.	0.00	0.00	0.01
18097	00005	BRIDGEPORT BRASS D/B/A OLIN BRASS	0.03	0.05	0.00
18097	00009	CENTRAL STATE HOSPITAL	0.00	0.00	0.00
18097	00010	GM MFD INDIANAPOLIS METAL CENTER	0.01	0.01	0.00
18097	00012	DAIMLER CHRYSLER CORPORATION FOUNDRY	0.07	0.08	0.21
18097	00014	NATIONAL RAILROAD PASSENGER CORPORATION			0.03
18097	00015	CARRIER CORPORATION			0.07
18097	00019	ELI LILLY AND COMPANY (LCC)	0.00	0.00	0.01
18097	00020	CARGILL DRY CORN INGREDIENTS	0.02	0.01	0.15
18097	00021	VISTEON CORPORATION - INDIANAPOLIS PLANT	0.03	0.03	0.00
18097	00028	ADM GRAIN COMPANY	0.00	0.00	0.00
18097	00029	ZIMMER PAPER PRODUCTS INC	0.00	0.00	0.00
18097	00030	MEADWESTVACO			0.02
18097	00031	INDIANA VENEERS CORP	0.02	0.02	0.01
18097	00032	INDIANAPOLIS BELMONT WWTP	4.20	0.44	0.24
18097	00033	IPL HARDING STREET STATION	1.60	17.73	0.21
18097	00034	C.C. PERRY K STEAM PLANT	0.45	3.29	0.03
18097	00037	CAPITOL CITY CONTAINER CORP.			0.00
18097	00039	INTERNATIONAL TRUCK AND ENGINE CORP.	0.98	0.09	0.54
18097	00040	VALSPAR COATINGS	0.00	0.00	0.09
18097	00041	WISHARD MEMORIAL HOSPITAL	0.03	0.03	0.01
18097	00042	NATIONAL STARCH & CHEMICAL CORPORATION	0.08	0.17	0.01
18097	00050	IR VON DUPRIN		0.00	0.02
18097	00061	CITIZENS GAS & COKE	1.12	1.03	0.18
18097	00063	INTERSTATE CASTINGS	0.00	0.00	0.04
18097	00068	INDPLS.JUVENILE CORRECTIONAL FACILITY	0.00	0.00	0.00
18097	00072	ELI LILLY AND COMPANY (LTC)			0.11
18097	00076	BP - INDIANAPOLIS TERMINAL			0.05

FIPS	State ID	Facility Name	CO	NOX	VOC
18097	00077	EQUILON ENTERPRISES LLC-INDIANAPOLIS			0.09
18097	00078	MARATHON ASHLAND PET.- SPEEDWAY TERMINAL			0.15
18097	00079	QUEMETCO, INC.	0.58	0.69	0.01
18097	00081	DORSEY PAVING INC	0.00	0.00	0.00
18097	00082	F.E. HARDING ASPHALT COMPANY	0.02	0.02	0.01
18097	00086	MILESTONE CONTRACTORS, L.P.	0.02	0.09	0.00
18097	00088	RIETH-RILEY88 ASPHALT PLANT #325	0.01	0.02	0.00
18097	00089	RIETH-RILEY89 ASPHALT PLANT #326	0.01	0.03	0.00
18097	00093	CRYOVAC RIGID PACKAGING CRYOVAC, INC.			0.90
18097	00095	PANHANDLE EASTERN PIPELINE CO	0.42	3.94	0.16
18097	00098	ASPHALT MATERIALS, INC.	0.02	0.03	0.03
18097	00100	RAYTHEON TECH. SERVICES CO.	0.01	0.01	0.02
18097	00102	BMG MUSIC	0.00	0.00	0.00
18097	00104	HANSON AGGREGATES MIDWEST, INC-STONE			-
18097	00107	SHOREWOOD PACKAGING CORP OF INDIANA			0.18
18097	00116	INDIANAPOLIS NEWSPAPERS - DOWNTOWN			0.04
18097	00119	BEST ACCESS SYSTEMS			0.04
18097	00121	SENSIENT FLAVORS, INC.	0.00	0.00	0.03
18097	00123	COVANTA INDIANAPOLIS, INC.	0.19	2.32	0.02
18097	00127	SUPERIOR METAL TECHNOLOGIES	0.00	0.00	0.00
18097	00129	ST VINCENT HOSPITAL	0.00	0.00	0.00
18097	00131	E & B PAVING INC.	0.03	0.03	0.02
18097	00135	GEIGER & PETERS, INC.			0.03
18097	00139	METALWORKING LUBRICANTS COMPANY	0.01	0.01	0.00
18097	00140	FIRESTONE BUILDING PRODUCTS CO.			0.02
18097	00141	CITIZENS GAS & COKE UTILITY - LNG NORTH	0.00	0.00	0.00
18097	00143	GAC INDIANAPOLIS SHEETFED DIVISION			0.02
18097	00145	GAC INDIANAPOLIS WEB DIVISION			0.03
18097	00146	MILLER VENEERS, INC.	0.00	0.00	0.00
18097	00151	BUTLER UNIVERSITY	0.00	0.01	0.00
18097	00154	INLAND PAPERBOARD - GRAPHIC RESOURCE CEN	0.00	0.00	0.05
18097	00156	UNITED AIRLINES INDPLS MAINTENANCE CENTR	0.04	0.10	0.10
18097	00159	MARATHON ASHLAND PET. - INDPLS TERMINAL			0.23
18097	00160	SAINT CLAIR PRESS	0.00	0.00	0.03
18097	00161	KROGER COMPANY - INDIANAPOLIS BAKERY	0.03	0.03	0.08
18097	00163	ST. FRANCIS HOSPITAL - BEECH GROVE	0.01	0.02	0.00
18097	00165	MAR-ZANE, INC. PT. 16	0.08		0.03
18097	00170	INTERSTATE BRANDS CORP.	0.01	0.01	0.34
18097	00176	LORD CORPORATION			0.01
18097	00178	COMMERCIAL FINISHING	0.00	0.00	0.00
18097	00179	COMMERCIAL FINISHING CORP 26TH ST.	0.00	0.00	0.01
18097	00181	CONAGRA FOODS	0.01	0.01	0.00
18097	00182	POSTER DISPLAY			0.02
18097	00186	ASHLAND DISTRIBUTION CO. - INDIANAPOLIS	0.00	0.00	0.01
18097	00188	KERR-MCGEE CHEMICAL CORPORATION - FPD	0.00	0.01	0.02
18097	00197	FIBERGLAS & PLASTIC FABRICATING INC.			0.01
18097	00229	COMMUNITY HOSPITAL EAST	0.01	0.05	0.00
18097	00231	DELUXE FINANCIAL SERVICES	0.00	0.00	0.02
18097	00233	GENERAL DEVICES CO., INC	0.00	0.00	0.02
18097	00235	HOLCOMB & HOKE MFG CO., INC.	-	-	0.01
18097	00241	FOUNTAIN TRUCK EQUIPMENT CO.			0.00

FIPS	State ID	Facility Name	CO	NOX	VOC
18097	00242	PRATT CORPORATION			0.06
18097	00243	NATIONAL BY-PRODUCTS, INC.	0.03	0.03	0.01
18097	00255	INLAND PAPERBOARD - ROOSEVELT	0.00	0.00	0.03
18097	00256	ALTEC INDUSTRIES, INC.			0.01
18097	00257	FEDERAL EXPRESS	0.01	0.02	0.00
18097	00259	DOW AGROSCIENCES	0.01	0.01	0.00
18097	00260	SELECO, INC.			0.00
18097	00265	INDY RAILWAY SERVICE CORP.			0.01
18097	00270	KELLER CRESCENT CO., INC.			0.01
18097	00272	INDUSTRIAL COATINGS SERVICES	0.00	0.01	0.01
18097	00273	TOYOSHIMA INDIANA, INC.			0.01
18097	00275	MAJOR TOOL & MACHINE, INC.			0.01
18097	00283	INDPLS AIR ROUTE TRAFFIC CONTROL CENTER	0.01	0.02	0.00
18097	00286	SUPERIOR OIL COMPANY			0.04
18097	00287	CITIZENS GAS & COKE UTILITY - LNG SOUTH	0.04	0.30	0.01
18097	00295	CITADEL ARCHITECTURAL PRODUCTS			0.04
18097	00296	WINONA MEMORIAL HOSPITAL	0.00	0.00	0.00
18097	00297	CMW, INC.	0.00	0.00	0.03
18097	00298	PRINT COMMUNICATIONS			0.16
18097	00301	HORNER ELECTRIC			0.00
18097	00302	CORSI CABINET COMPANY, INC.			0.07
18097	00303	IVC INDUSTRIAL COATING			0.08
18097	00304	ST. FRANCIS HOSPITAL AND HEALTH CENTER	0.02	0.05	0.00
18097	00310	ALLISON TRANSMISSION GENERAL MOTORS CORP	0.55	0.59	0.03
18097	00311	ROLLS-ROYCE CORPORATION. PLANT 5 & 8	0.10	0.25	0.15
18097	00312	CENTRAL CORRUGATED, INCORPORATED	0.00	0.01	0.00
18097	00314	INLAND PAPERBOARD - STOUT FIELD	0.01	0.01	0.02
18097	00315	REILLY INDUSTRIES, INC.	8.30	0.17	0.14
18097	00316	RTP COMPANY			0.00
18097	00318	SPORT GRAPHICS, INC.			0.06
18097	00329	THE JACKSON GROUP			0.02
18097	00331	SCHERER INDUSTRIAL GROUP, INC.	0.00	0.00	0.00
18097	00338	ROCHE DIAGNOSTICS CORPORATION	0.00	0.01	0.00
18097	00342	SUBURBAN STEEL SUPPLY COMPANY	0.00	0.00	0.02
18097	00346	SPG GRAPHICS			0.03
18097	00352	GEORGETOWN SUBSTATION GENERATING PLANT	0.35	0.08	0.04
18097	00354	VILLAGE PANTRY #392			0.00
18097	00357	DESIGN INDUSTRIES			0.10
18097	00359	BAUER BUILT, INC.			0.01
18097	00360	MASCO SUPPORT SERVICES			0.03
18097	00365	QUAKER OATS CO-MAYFLOWER MIDWEST FACILIT	0.02	0.03	0.00
18097	00366	SOUTH SIDE LANDFILL, INC.	0.34	0.03	0.03
18097	00368	EAR SPECIALTY COMPOSITES & AEARO COMPANY			0.19
18097	00369	VISTA PACKAGING			0.00
18097	00373	PARTS CLEANING TECHNOLOGIES, LLC	0.00	0.00	0.01
18097	00374	AT OF GM - PARK FLETCHER BUILDING 38	0.00	0.00	0.00
18097	00377	IPL THOMPSON SUBSTATION	0.03	0.13	0.01
18097	00378	IPL SUNNYSIDE SUBSTATION	0.01	0.05	0.00
18097	00379	IPL ROCKVILLE SUBSTATION	0.01	0.04	0.00
18097	00380	IPL PROSPECT SUBSTATION	0.01	0.04	0.00
18097	00381	IPL GERMAN CHURCH SUBSTATION	0.01	0.06	0.00

FIPS	State ID	Facility Name	CO	NOX	VOC
18097	00382	IPL-GLENS VALLEY SUBSTATION	0.01	0.05	0.00
18097	00383	IPL-GUION SUBSTATION	0.01	0.05	0.00
18097	00384	IPL CUMBERLAND SUBSTATION	0.01	0.04	0.00
18097	00391	ROYAL SPA MFG.			0.05
18097	00402	INDIANAPOLIS NEWSPAPERS - PULLIAM CENTER			0.01
18097	00410	ULRICH CHEMICAL, INC.			0.01
18097	00421	QWEST - T1	0.00	0.00	0.00
18097	00422	QWEST - POP	0.00	0.00	0.00
18099	00001	BREMEN CASTINGS INC	0.40	0.02	0.08
18099	00002	INDIANA HEAT TRANSFER CORPORATION			0.08
18099	00003	PLYMOUTH FOUNDRY			0.00
18099	00004	DOORCRAFT OF INDIANA	0.00	0.00	0.08
18099	00020	BREMEN GLASS INC.			0.74
18099	00021	BOMARKO INC.	0.01	0.01	0.03
18099	00022	AKER PLASTICS CO. INC.	0.01	0.01	0.71
18099	00023	EAGLE CRAFT INC.			0.05
18099	00025	FERRO CORPORATION			0.28
18099	00028	PACTIV CORPORATION	0.00	0.00	0.50
18099	00029	PIONEER HI-BRED INTL	0.00	0.00	0.00
18099	00033	BREMEN CORPORATION			0.08
18099	00035	AKER PLASTICS CO. INC.	0.00	0.00	0.09
18099	00036	BREMEN TECHNOLOGIES, LLC	0.00	0.00	0.14
18099	00037	CHARLESTON CORP.			0.10
18099	00041	NISHIKAWA STANDARD COMPANY			0.13
18099	00043	AK INDUSTRIES, INC.			0.09
18099	00044	DURA-VENT CORPORATION			0.08
18099	00047	CREATIVE WOOD PRODUCTS, INC	-	-	0.01
18099	00048	WHITLEY PRODUCTS, INC	0.00	0.00	0.02
18099	00050	FOIL LAM., DIV. OF GLENMARK			0.00
18099	00052	HOOSIER TIRE & RUBBER CORP.			0.10
18099	00079	STANDARD GLAS, INC.	0.00	0.00	0.02
18099	00080	C&C FIBERGLASS, INC.			0.25
18099	00089	MIKE'S CUSTOM PAINTING			0.12
18101	00001	UNITED STATES GYPSUM COMPANY	0.14	0.17	0.01
18101	00005	NAVAL SURFACE WARFARE CENTER CRANE	1.50	0.22	0.19
18103	00001	PERU UTILITIES	0.03	1.29	0.00
18103	00008	GRISSOM AIR RESERVE BASE	0.01	0.02	0.01
18103	00011	COUNTRYMARK COOPERATIVE, INC.			0.68
18103	00016	WOODCREST MANUFACTURING	0.00	0.00	0.36
18103	00021	TRELLEBORG AUTOMOTIVE			0.01
18103	00027	WOODCREST MANUFACTURING - DINETTE PLANT			0.50
18105	00001	ROGERS GROUP-BLOOMINGTON CRUSHED STONE	0.00	0.00	0.00
18105	00003	GENERAL ELECTRIC COMPANY	0.02	0.02	0.49
18105	00005	INDIANA UNIVERSITY	0.30	0.66	0.00
18105	00006	UNITED TECH.- OTIS ELEVATORS			0.04
18105	00018	PRINTPACK, INC.	0.00	0.00	0.65
18105	01331	RIETH-RILEY1331PORTABLE CONCRETE PLANT #	0.00	0.02	0.00
18105	03182	ROGERS GROUP,INC.-BLOOMINGTON ASPHALT	0.28	0.02	0.12
18105	05023	ROGERS GROUP,INC.-PORTABLE ASPHALT	0.06	0.26	0.19
18107	00003	CRAWFORDSVILLE ELECTRIC LIGHT & POWER	0.59	1.30	0.01
18107	00004	CROWN CORK & SEAL CO. (USA) INC.	0.01	0.01	0.34

FIPS	State ID	Facility Name	CO	NOX	VOC
18107	00007	RAYBESTOS	0.04	0.05	0.25
18107	00038	NUCOR STEEL	1.74	0.63	0.15
18107	00045	FLEETWOOD TRAVEL			0.03
18107	00052	R.R. DONNELLEY & SONS COMPANY	0.02	0.02	0.54
18109	00002	GENERAL SHALE PRODUCTS	0.21	0.13	0.01
18109	00004	IPALCO-PRITCHARD STATION	0.53	12.76	0.07
18109	00007	HYDRAULIC PRESS BRICK CO.	0.17	0.54	0.21
18111	00005	BON L MANUFACTURING COMPANY			0.36
18111	00017	NEWTON COUNTY LANDFILL	0.04	0.02	0.03
18113	00004	DALTON CORP. KENDALLVILLE MFG. FACILITY	2.51	0.10	0.29
18113	00008	DEXTER AXLE COMPANY	0.00	0.00	0.05
18113	00013	ESSEX GROUP, INC.	0.00	0.00	0.53
18113	00018	THYSSENKRUPP BUDD COMPANY - KENDALLVILLE			0.53
18113	00019	COLWELL GENERAL			0.02
18113	00023	VIBRACOUSTIC NORTH AMERICA			0.11
18113	00036	KREIDER MANUFACTURING, INC.	0.00	0.00	0.04
18113	00049	TOWER STRUCTURAL LAMINATING, INC.			0.07
18113	00071	ALUMINUM RECOVERY TECHNOLOGIES, INC.	0.01	0.02	0.01
18113	00074	STRUCTURAL COMPOSITES OF INDIANA, INC.	0.00	0.00	0.11
18117	00004	SPRINGS VALLEY MANUFACTURING			0.30
18117	00006	INDIANA HANDLE COMPANY	0.01	0.00	0.02
18117	00010	TETCO - FRENCH LICK STATION	0.21	2.83	0.07
18117	00013	COPPERFIELD, LLC.	0.00	0.01	0.01
18117	00014	PAOLI, INC.			0.87
18121	00008	PEPL - MONTEZUMA STATION	0.12	2.73	0.04
18123	00006	GE INDUSTRIAL SYSTEMS, INC	0.00	0.00	0.05
18123	00018	SCHWAB CORPORATION			0.05
18123	00019	THYSSENKRUPP WAUPACA, INC. - PLANT 5	5.83	0.27	0.65
18123	03259	J.H. RUDOLPH & CO., INC.	0.00	0.04	0.00
18125	00001	HOOSIER ENERGY - RATTS STATION	0.41	9.64	0.05
18125	00002	IPL PETERSBURG GENERATING STATION	3.51	52.30	0.49
18125	00004	MIDWESTERN GAS TRANSMISSION	0.00	0.00	0.00
18125	00005	TEXAS GAS TRANSMISSION - PETERSBURG	0.00	0.01	0.00
18125	00033	BLACKFOOT LANDFILL	0.05	0.02	0.04
18127	00001	BETHLEHEM STEEL CORP. - BURNS HARBOR	402.27	26.01	2.69
18127	00002	NIPSCO - BAILLY STATION	1.10	52.40	0.24
18127	00003	AOC	0.02	0.02	0.03
18127	00005	PRECOAT METALS	0.03	0.04	1.06
18127	00009	NATIONAL STEEL CORP	0.23	0.38	0.02
18127	00012	UNITED STATES CAN COMPANY	0.03	0.04	0.33
18127	00021	POWDER PROCESSING AND TECHNOLOGY	0.00	0.01	0.00
18127	00024	LEVY CO., CALUMITE/FINISHING PLANT	0.01	0.01	0.00
18127	00025	CARGILL BURNS HARBOR GRAIN EL	0.01	0.01	0.00
18127	00028	MAGNEQUENCH UG			0.02
18127	00030	REXAM BEVERAGE CAN COMPANY			0.13
18127	00036	BETA STEEL CORP	0.73	0.58	0.09
18127	00039	MAGNETICS INTERNATIONAL, INC.	0.03	0.04	0.00
18127	00040	WORTHINGTON STEEL	0.01	0.01	0.00
18127	00042	WHEELER RECYCLING & DISPOSAL FACILITY	0.12	0.03	0.01
18127	00050	ISK MAGNETICS INC	0.02	0.02	0.00
18127	00059	SIGNATURE GRAPHICS, INC.			0.03

FIPS	State ID	Facility Name	CO	NOX	VOC
18127	00067	PORTSIDE ENERGY CORPORATION	0.24	0.32	0.02
18127	00069	PRAXAIR INC.	0.01	0.01	0.00
18127	00075	BETHLEHEM STEEL - KVAERNER SONGER, INC.	0.00	0.00	0.00
18127	00076	PHILIP METALS - BURNS HARBOR YARD	0.02	0.01	0.00
18127	00085	AMERICAN IRON OXIDE COMPANY	0.08	0.08	0.01
18127	00088	CITY OF VALPO-ELDEN KUEHL WWTP	0.01	0.00	0.00
18127	00094	JET CORR, INC.	0.02	0.01	0.01
18127	00097	SUPERIOR ENVIRONMENTAL REMEDIATION, INC			0.02
18127	03214	WALSH & KELLY INC.	0.02	0.03	0.00
18127	03224	RIETH-RILEY3224 ASPHALT PLANT #3670	0.01	0.04	0.00
18129	00001	CARGILL, INC. - MOUNT VERNON	0.00	0.00	0.00
18129	00002	GE PLASTICS MT. VERNON INC.	1.35	6.75	0.98
18129	00003	COUNTRYMARK COOPERATIVE, INC (REFINERY)	22.45	1.40	1.86
18129	00010	SIGECO - A. B. BROWN	1.44	21.28	0.15
18129	00021	MEAD JOHNSON & CO	0.02	0.02	0.00
18129	00028	SIGECO - OLIVER GAS STORAGE FIELD	0.02	0.15	0.01
18129	00035	CONSOLIDATED GRAIN AND BARGE COMPANY	0.06	0.07	0.74
18129	00037	COUNTRYMARK COOPERATIVE, INC (RIVERDOCK)			0.01
18131	00017	THE BRAUN CORPORATION		-	0.13
18133	00002	LONE STAR INDUSTRIES, INC	0.66	4.44	0.00
18133	00018	LEAR CORP.-			0.03
18133	00019	H.A. PARTS PRODUCTS OF INDIANA COMPANY			0.46
18133	00024	PUTNAM PLASTICS INC			0.14
18133	00027	HEARTLAND AUTOMOTIVE, LLC			0.34
18133	00037	HANSON AGGREGATES MIDWEST, INC-STONE			-
18135	00002	ASTRAL INDUSTRIES INC.	0.00	0.00	0.41
18135	00009	YORK CASKET COMPANY			0.49
18135	00012	ANCHOR GLASS CONTAINER CORPORATION	0.06	1.81	0.06
18135	00018	UNION CITY BODY COMPANY LLC			0.41
18135	00030	RANDOLPH FARMS, INC.	0.25	0.01	0.01
18137	00002	HILL-ROM CO	0.00	0.01	0.12
18137	00007	JOSEPH E. SEAGRAM & SONS, INC.			2.52
18137	00008	ROMWEBER FURNITURE COMPANY	0.01	0.05	0.31
18137	00016	BATESVILLE MFG, INC. COMBO 137-00016			1.40
18137	03191	PAUL H. ROHE CO, INC.	0.00	0.00	0.00
18137	03258	PAUL H. ROHE	0.00	0.01	0.00
18137	05047	DAVE O MARA CONTRACTOR PLANT 3	0.00	0.01	0.01
18139	00001	JEFFERSON SMURFIT CORPORATION	0.04	0.05	0.03
18139	00011	INTAT PRECISION, INC.		0.00	0.19
18141	00007	RMG FOUNDRY (FORMERLY DODGE)	0.00	0.00	0.09
18141	00008	RACO, INC.	0.00	0.00	0.00
18141	00009	HOLY CROSS SERVICES CORP.	0.01	0.01	0.00
18141	00013	UNIVERSITY OF NOTRE DAME DU LAC	0.23	1.87	0.01
18141	00016	BP - GRANGER TERMINAL			0.02
18141	00026	ASPHALT ENGINEERS INC	0.02	0.02	0.01
18141	00027	RIETH-RILEY27 ASPHALT PLANT #365	0.00	0.02	0.00
18141	00031	AM GENERAL CORPORATION	0.00	0.00	0.59
18141	00033	NEW ENERGY CORP.	0.09	2.50	3.24
18141	00051	PRAIRIE VIEW RECYCLING	0.31	0.28	0.03
18141	00058	MOHAWK FLUSH DOORS, INC.	0.00	0.00	0.01
18141	00062	POLYGON COMPANY	0.00	0.00	0.13

FIPS	State ID	Facility Name	CO	NOX	VOC
18141	00063	MOSSBERG AND COMPANY, INC.			0.08
18141	00067	AMERICAN ROLLER CO, LLC	0.00	0.00	0.04
18141	00069	SPECTRA INCORPORATED	0.00	0.00	0.03
18141	00071	ULTRA/GLAS OF LAKEVILLE			0.07
18141	00072	GALLERY GRAPHICS GROUP	0.00	0.00	0.20
18141	00090	IMAGINEERING ENTERPRISES, INC.	0.00	0.00	0.01
18141	00091	MOLDING PRODUCTS DIV			0.02
18141	00093	WHITFORD TRAILER & EQUIPMENT	0.00	0.00	0.01
18141	00100	STRIPCO, INC.	0.00	0.00	0.00
18141	00102	EDCOAT LIMITED PARTNERSHIP	0.00	0.03	0.06
18141	00103	CHARLES O. HILER DIVISION	0.00	0.00	0.01
18141	00105	BECHTEL PLANT MACHINERY INCORPORATED MIS	0.01	0.05	0.00
18141	00116	SOUTH BEND ABSORBTech? LLC.	0.00	0.00	0.20
18141	00120	TOTAL ENTERPRISES, LTD.			0.01
18141	00125	ASHLAND DISTRIBUTION SOUTH BEND PLANT	0.00	0.00	0.00
18141	00128	PENZ PRODUCTS, INC.	0.00	0.00	0.03
18141	00129	JANCO PRODUCTS, INC.	0.00	0.00	0.07
18141	00132	ARAMARK UNIFORM SERVICES	0.01	0.01	0.00
18141	00134	J.Q. TEX, INC - DBA TRAILMASTER			0.04
18141	00139	SOUTH BEND TERMINAL - BET	0.00	0.01	0.03
18141	00144	MASONITE (FORMERLY PREMDOR)	0.00	0.00	0.01
18141	00146	ROYAL ADHESIVES & SEALANTS			0.17
18141	00158	INDIANA UNIVERSITY-SOUTH BEND	-	-	-
18141	00159	I/N TEK I/N KOTE COMBINED	0.11	0.34	0.03
18141	00160	CITY OF SOUTH BEND-WASTEWATER TREATMENT	0.18	0.19	0.02
18141	00166	SAFETY & ENVIRONMENTAL RESOURCES	0.00	0.00	0.04
18141	00167	REMOTE CONTROLS, INC.			0.01
18141	00172	HONEYWELL INC. COMBO (141-5&6)	0.14	0.09	0.10
18141	00177	MISHAWAKA WASTEWATER TREATMENT PLANT	0.02	0.15	0.01
18141	00179	BOWNE SOUTH BEND MANUFACTURING			0.03
18141	00181	ABTREX INDUSTRIES			0.04
18141	00184	POWER GEAR			0.01
18141	00186	SAMPSON FIBERGLASS, INC.	0.00	0.00	0.09
18141	00191	SOUTH BEND MEDICAL FOUNDATION	0.00	0.00	0.00
18141	00192	JACKEL, INC.			0.01
18141	00193	CLARK STATION # 379			0.00
18141	00196	NCP COATINGS, INC.	0.00	0.00	0.01
18141	00197	HOGUE ENTERPRISES	0.00	0.00	0.02
18141	01606	RIETH-RILEY1606 PORTABLE CONCRETE PLANT	-	-	-
18141	03121	BROOKS CONSTRUCTION CO. INC.	0.01	0.01	0.01
18141	03219	WALSH & KELLY INC.	0.09	0.12	0.04
18143	00007	MULTICOLOR CORPORATION	0.02	0.02	0.16
18143	00010	FREUDENBERG-NOK GENERAL PARTNERSHIP			0.00
18143	00016	GENPAK LLC	0.02	0.02	0.31
18143	03192	DAVE O MARA CONTRACTOR PLANT 6	0.00	0.01	0.00
18143	05195	INDEPENDENT ASPHALT COMPANY	0.00	0.01	0.00
18145	00001	KNAUF FIBERGLASS	0.53	0.35	0.29
18145	00011	ANR PIPELINE CO - SHELBYVILLE STATION	0.25	3.09	0.17
18145	00013	JUPITER COIL COATING DIVISION			0.07
18145	00017	MERIDIAN AUTOMOTIVE SYSTEMS	0.02	0.02	0.51
18145	00024	PLIANT CORPORATION (FORMERLY KCL CORP)			0.00

FIPS	State ID	Facility Name	CO	NOX	VOC
18145	00028	FREUDENBERG-NOK GENERAL PARTNERSHIP			0.16
18145	00033	TEXTRON AUTOMOTIVE EXTERIORS INC.	0.00	0.00	0.18
18145	00035	CENTRAL SOYA COMPANY, INC.	0.04	0.04	0.57
18145	00049	CALDWELL GRAVEL SALES, INC.			0.01
18145	00057	MPL CORPORATION			0.03
18145	00060	CALDWELL GRAVEL SALES (CGS)	0.05	0.10	0.01
18147	00020	INDIANA MICHIGAN POWER-ROCKPORT	6.30	92.43	0.75
18147	00041	AK STEEL ROCKPORT WORKS	0.32	0.35	0.04
18147	00044	FLEXCEL - SANTA CLAUS			0.26
18147	00050	AMERICAN IRON OXIDE COMPANY	0.02	0.03	0.00
18149	00005	T G C - NORTH JUDSON STATION	0.04	0.41	0.01
18151	00015	TENNECO AUTOMOTIVE			0.08
18153	00005	HOOSIER ENERGY RURAL ELEC MEROM STATION	2.35	42.61	0.28
18153	00019	TEXAS GAS TRANSMISSION - WILFRED	0.01	0.14	0.00
18155	00005	SWISS CAPS			0.13
18157	00001	ALCOA - LAFAYETTE DIVISION	0.04	0.04	0.18
18157	00003	A.E. STALEY SAGAMORE OPERATION	0.15	1.45	1.62
18157	00006	ELI LILLY & COMPANY-TIPPECANOE LABS	0.39	0.82	0.31
18157	00012	PURDUE UNIVERSITY -WADE UTILITY PLANT	0.84	1.96	0.03
18157	00014	ORC PLASTICS - ROSTONE			0.05
18157	00032	REA MAGNET WIRE CO	0.03	0.03	0.46
18157	00033	A.E. STALEY MAN. CO. SOUTH PLANT	0.71	1.41	1.20
18157	00035	CANAM STEEL CORPORATION	-		0.46
18157	00038	CARGILL, INC. - LAFAYETTE	0.04	0.05	1.21
18157	00044	CATERPILLAR INC.	0.12	0.52	0.17
18157	00046	WABASH NATIONAL LP MAIN PLANT	-	-	0.63
18157	00050	SUBARU-ISUZU	0.08	0.10	1.36
18157	00052	LAFAYETTE HOME HOSPITAL	0.01	0.02	0.00
18157	00068	WABASH NATIONAL LP SOUTH PLANT	-	-	0.10
18157	00080	PERRY CHEMICAL & MFG. CO., INC.			0.03
18163	00001	SIGECO - OHIO RIVER	0.47	5.33	0.03
18163	00003	SILGAN CLOSURES, LLC	0.02	0.02	0.14
18163	00005	EVANSVILLE STATE HOSPITAL	0.01	0.01	0.00
18163	00008	INDIAN INDUSTRIES - DBA ESCALADE SPORTS			0.03
18163	00009	HOOSIER STAMPING & MFG. CORP	0.00	0.00	0.02
18163	00011	BOOTZ MFG CO	0.01	0.02	0.09
18163	00013	KOCH ORIGINALS	0.00	0.01	0.02
18163	00014	GEO KOCH SONS INC	0.00	0.00	0.01
18163	00015	MEAD JOHNSON AND COMPANY	0.07	0.04	0.09
18163	00016	STRUCTURAL FABRICATORS, INC.			0.02
18163	00017	GUARDIAN AUTOMOTIVE TRIM, INC.	0.02	0.02	0.69
18163	00018	RED SPOT PAINT & VARNISH CO., INC.	0.00	0.00	0.14
18163	00020	A ASPHALT CO. INC.	0.00	0.00	0.00
18163	00022	WHIRLPOOL CORP	0.02	0.02	0.48
18163	00024	CRADDOCK FINISHING CORPORATION			0.07
18163	00025	MARATHON ASHLAND PET. - EVANSVILLE TERM			0.03
18163	00026	INLAND PAPERBOARD - EVANSVILLE	0.01	0.01	0.00
18163	00029	DEACONESS HOSPITAL	0.00	0.01	0.00
18163	00036	KARGES FURNITURE CO., INC.	0.00	0.00	0.03
18163	00040	HARTFORD BAKERY INC.	0.00	0.01	0.33
18163	00041	ST. MARY'S MEDICAL CENTER	0.00	0.00	0.00

FIPS	State ID	Facility Name	CO	NOX	VOC
18163	00045	EVANSVILLE METAL PROD		0.00	0.00
18163	00048	EVANSVILLE SHEET METAL WORKS, INC			0.01
18163	00063	TRANSMONTAIGNE TERMINAL INC.			0.11
18163	00064	UNIV OF EVANSVILLE	0.01	0.01	0.00
18163	00067	GENERAL ELECTRIC I&RS	0.00	0.00	0.00
18163	00069	ST. MARY'S MEDICAL CENTER - WELBORN	0.00	0.00	0.00
18163	00070	FAULTLESS CASTER CORP	0.00	0.00	0.00
18163	00071	INTRAMETCO PROCESSING INC.	0.00	0.01	0.00
18163	00078	ROBUR CORPORATION	0.00	0.00	0.00
18163	00081	INDIANA TUBE CORP.	0.00	0.01	0.13
18163	00084	SIGECO - BERGDOLT ROAD - NEG	0.00	0.01	0.00
18163	00087	OBRYAN BARREL CO., INC.	0.00	0.00	0.01
18163	00094	PPG INDUSTRIES, INC. WKS #28	0.01	0.01	0.07
18163	00095	INDUSTRIAL CONTRACTORS, INC. METAL FAB	0.00	0.00	0.02
18163	00096	FLANDERS ELECTRIC MOTOR SERVICE	0.00	0.00	0.01
18163	00097	KELLER CRESCENT CO., INC.			0.07
18163	00106	BERRY PLASTICS CORP.			0.09
18163	00107	AZTECA MILLING, L.P.	0.05	0.05	0.00
18163	00112	AMERIQUAL FOODS, INC.	0.01	0.01	0.00
18163	00114	BFI	0.32	0.11	0.02
18163	00115	MASTER MANUFACTURING CO., INC.	0.00	0.00	0.03
18163	00116	KRIEGER & RAGSDALE CO., INC.	0.00	0.00	0.01
18163	00117	ALVEYS SIGN COMPANY			0.02
18163	00120	FERRO CORP. FILLED AND REINFORCED PLAST.			0.07
18163	00129	KERRY INGREDIENTS	0.01	0.02	0.16
18163	00131	SIGNCRAFTERS			0.01
18163	00139	FLANDERS ELECTRIC MOTOR SERVICE	0.00	0.00	0.00
18163	00146	FEHRENBACHER CABINETS			0.00
18163	00147	UNIVERSITY OF SOUTHERN INDIANA	0.01	0.01	0.00
18163	00148	UNISEAL, INC.; PLANT #2	0.00	0.00	0.02
18163	00153	STERLING BOILER AND MECHANICAL, INC.			0.00
18163	00156	SKY CYLINDER TESTING, INC.	0.00	0.00	0.01
18163	00157	TRUCK CLEAN, INC.			0.02
18163	00163	COLLIS, INC.	0.02	0.02	0.04
18163	00165	DECORING SUPPLIES & EQUIPMENT, INC.	0.00	0.00	0.04
18163	00888	BRAKE SUPPLY	0.00	0.00	0.02
18163	03146	JERRY DAVID ASPHALT	0.00	0.03	0.00
18163	03408	J.H.RUDOLPH & CO	0.01	0.05	0.00
18165	00001	PSI ENERGY - CAYUGA	2.09	24.28	0.25
18165	00002	COLONIAL BRICK CORP.	0.01	0.07	0.00
18165	00009	ELI LILLY & COMPANY-CLINTON LABS	0.69	2.60	2.31
18165	00022	DUKE ENERGY VERMILLION, LLC	0.09	0.24	0.01
18167	00001	ALCAN ALUMINUM CORPORATION	0.01	0.01	1.20
18167	00004	WABASH ENVIRONMENTAL TECHNOLOGIES, LLC	0.00	0.00	0.00
18167	00007	GARTLAND FOUNDRY COMPANY	-	0.00	0.03
18167	00010	INDIANA STATE UNIV	0.03	0.01	0.00
18167	00011	GREAT DANE TRAILERS	0.00	0.00	0.16
18167	00013	PFIZER INC	0.03	0.59	0.00
18167	00019	US PENITENTIARY	0.00	0.03	0.01
18167	00021	PSI ENERGY - WABASH RIVER	1.61	32.07	0.21
18167	00022	INTERNATIONAL PAPER CO.	0.60	0.74	0.20

FIPS	State ID	Facility Name	CO	NOX	VOC
18167	00033	BEMIS COMPANY, INC.	0.01	0.01	4.57
18167	00036	RAILWORKS WOOD PRODUCTS	0.01	0.01	0.10
18167	00060	STANDARD REGISTER COMPANY			0.02
18167	00076	PRAIRIE GROUP - PLANT 75	-	-	
18167	00087	PRAIRIE GROUP - PLANT 76	-	-	-
18167	00091	WABASH RIVER ENERGY LTD.	1.08	0.09	0.00
18167	00116	VICTORY ENVIRONMENTAL SERVICES			0.02
18167	00120	CSN,LLC	0.06	0.02	0.00
18167	00123	MIRANT SUGAR CREEK LLC	0.01	0.04	0.00
18169	00001	BPB AMERICA, INC.	4.77	0.03	0.02
18169	00002	JEFFERSON SMURFIT CORPORATION (U.S.)	0.16	0.53	0.12
18169	00004	GDX AUTOMOTIVE - WABASH	0.01	0.01	0.44
18169	00009	THERMAFIBER INC. WABASH PLANT	24.28	0.16	0.36
18169	00010	WABASH ALLOYS, L.L.C.	0.37	0.37	0.24
18169	00019	NORTH MANCHESTER FOUNDRY, INC.	0.00	0.00	0.03
18169	00034	PSI ENERGY MIAMI-WABASH PEAKING STATION	0.00	0.00	0.00
18169	00035	ALUMITECH OF WABASH, INC.	0.00	0.01	0.00
18169	00042	HAYES LEMMERZ INT'L - WABASH	0.02	0.03	0.16
18169	00058	WABASH VALLEY LANDFILL	0.12	0.02	0.04
18171	03273	MILESTONE CONTRACTORS L.P.	0.00	0.02	0.00
18173	00001	SIGECO - F.B.CULLEY GENERATING STATION	0.91	19.41	0.11
18173	00002	AGC DIVISION - ALCOA POWER GENERATING	1.56	44.25	0.18
18173	00007	ALCOA INC. - WARRICK OPERATIONS	62.12	0.68	1.61
18175	00001	CHILD CRAFT INDUSTRIES, INC.	0.09	0.06	1.01
18175	00007	KIMBALL OFFICE CASEGOODS MANUFACTURING	0.05	0.01	0.44
18177	00001	#30 - SILGAN CLOSURES, LLC	0.03	0.03	0.17
18177	00006	JOHNS MANVILLE	0.18	0.13	0.10
18177	00009	RICHMOND POWER & LIGHT	0.22	4.36	0.03
18177	00015	MASTERBRAND CABINETS, INC. - RICHMOND			0.51
18177	00040	IMPA - RICHMOND STATION	0.80	0.43	0.07
18177	00057	ROMARK INDUSTRIES			0.18
18177	00061	MILSO INDUSTRIES			0.19
18177	00068	MASONITE			0.10
18177	00083	J. M. HUTTON & CO. (COMBO 177-53&54)			0.22
18177	00090	RICHMOND LINER FOUNDRY & MACHINE PLANT	0.01	0.01	0.00
18179	00005	STERLING CASTING	2.91	0.00	0.08
18179	00010	FRANKLIN ELEC CO	0.00	0.03	0.11
18179	00016	WAYNE METALS, LLC	0.00	0.00	0.04
18179	00026	MONTPELIER ELECTRIC GENERATING STATION	0.24	0.34	0.08
18181	00008	BP - BROOKSTON			0.25
18181	00022	BALL METAL BEVERAGE CONTAINER CORP	0.02	0.02	0.23
18181	00035	LIBERTY LANDFILL, INC.	0.06	0.02	0.02
18181	03172	ROBERT L. KELLY ASPHALT, INC.	0.00	0.00	0.00
18183	00014	HOLMES & COMPANY INC.	0.01	0.00	0.00
18183	00016	ESSEX GROUP, INC. METALS PROCESSING #055	0.07	0.06	1.00
18183	00023	FORT WAYNE FOUNDRY - COLUMBIA CITY	0.05	0.06	0.06
18183	00026	FIBRE FORM CORPORATION	0.00	0.00	0.00
18183	00030	STEEL DYNAMICS, INC. STRUCTURAL AND RAIL	0.49	0.14	0.03
		Totals	1,132	1,090	188

iii) Area Sources

Table 5-8 Summerday Area Source Emissions Inventory

FIPS	County	CO	NOX	VOC
18001	ADAMS	0.52	0.54	2.89
18003	ALLEN	3.64	3.87	18.76
18005	BARTHOLOMEW	1.15	1.17	6.02
18007	BENTON	0.07	0.07	1.55
18009	BLACKFORD	0.18	0.16	1.55
18011	BOONE	0.35	0.32	3.63
18013	BROWN	0.40	0.07	0.79
18015	CARROLL	0.27	0.22	1.62
18017	CASS	0.59	0.62	3.34
18019	CLARK	0.97	0.88	7.25
18021	CLAY	0.30	0.20	2.05
18023	CLINTON	0.35	0.39	2.68
18025	CRAWFORD	0.31	0.04	0.76
18027	DAVIESS	0.31	0.25	2.30
18029	DEARBORN	0.57	0.31	2.02
18031	DECATUR	0.48	0.47	2.44
18033	DE KALB	0.90	0.96	3.88
18035	DELAWARE	1.07	1.09	7.70
18037	DUBOIS	1.04	1.04	4.72
18039	ELKHART	3.96	4.48	14.57
18041	FAYETTE	0.41	0.40	1.93
18043	FLOYD	0.73	0.73	5.05
18045	FOUNTAIN	0.27	0.23	1.87
18047	FRANKLIN	0.32	0.14	1.25
18049	FULTON	0.27	0.26	2.03
18051	GIBSON	0.48	0.42	2.92
18053	GRANT	0.79	0.84	4.96
18055	GREENE	0.44	0.16	1.96
18057	HAMILTON	1.42	1.21	10.04
18059	HANCOCK	0.44	0.40	3.79
18061	HARRISON	0.61	0.33	2.23
18063	HENDRICKS	0.66	0.56	5.53
18065	HENRY	0.41	0.41	3.65
18067	HOWARD	1.30	1.46	5.39
18069	HUNTINGTON	0.55	0.53	2.97
18071	JACKSON	0.79	0.61	4.07
18073	JASPER	0.26	0.23	3.10
18075	JAY	0.30	0.28	1.89
18077	JEFFERSON	0.53	0.34	2.17
18079	JENNINGS	0.44	0.25	1.99
18081	JOHNSON	1.07	1.01	8.87
18083	KNOX	0.32	0.25	3.13
18085	KOSCIUSKO	1.34	1.36	6.95
18087	LAGRANGE	0.65	0.60	2.90
18089	LAKE	3.93	4.37	24.78

FIPS	County	CO	NOX	VOC
18091	LA PORTE	1.18	1.12	7.10
18093	LAWRENCE	0.69	0.45	2.72
18095	MADISON	1.15	1.21	7.64
18097	MARION	7.73	8.77	45.93
18099	MARSHALL	0.68	0.66	3.49
18101	MARTIN	0.33	0.08	0.72
18103	MIAMI	0.36	0.31	2.72
18105	MONROE	1.33	1.03	5.97
18107	MONTGOMERY	0.59	0.56	3.45
18109	MORGAN	0.64	0.41	3.67
18111	NEWTON	0.16	0.14	1.73
18113	NOBLE	0.93	0.93	4.13
18115	OHIO	0.07	0.02	0.33
18117	ORANGE	0.39	0.19	1.33
18119	OWEN	0.40	0.16	1.44
18121	PARKE	0.28	0.10	1.46
18123	PERRY	0.49	0.18	1.30
18125	PIKE	0.23	0.06	0.95
18127	PORTER	1.35	1.35	7.49
18129	POSEY	0.35	0.26	1.92
18131	PULASKI	0.17	0.13	1.44
18133	PUTNAM	0.48	0.30	2.32
18135	RANDOLPH	0.31	0.30	2.24
18137	RIPLEY	0.49	0.34	2.04
18139	RUSH	0.18	0.16	1.73
18141	ST JOSEPH	2.39	2.65	14.41
18143	SCOTT	0.39	0.25	1.69
18145	SHELBY	0.54	0.60	3.29
18147	SPENCER	0.59	0.21	1.78
18149	STARKE	0.25	0.17	1.96
18151	STEUBEN	0.65	0.63	3.48
18153	SULLIVAN	0.25	0.11	1.83
18155	SWITZERLAND	0.18	0.04	0.57
18157	TIPPECANOE	1.71	1.79	8.20
18159	TIPTON	0.15	0.13	1.33
18161	UNION	0.08	0.03	0.56
18163	VANDERBURGH	1.84	1.94	10.48
18165	VERMILLION	0.20	0.14	1.37
18167	VIGO	1.10	0.99	6.62
18169	WABASH	0.52	0.50	2.43
18171	WARREN	0.10	0.05	1.01
18173	WARRICK	0.63	0.34	3.25
18175	WASHINGTON	0.53	0.27	1.93
18177	WAYNE	0.84	0.89	5.29
18179	WELLS	0.32	0.32	2.32
18181	WHITE	0.34	0.33	2.60
18183	WHITLEY	0.48	0.43	2.47
	Totals	71.20	66.56	400.04

iv) Nonroad Emissions

Table 5-9 Summerday Nonroad Emissions Inventory

FIPS	County	CO	NOX	VOC
18001	ADAMS	8.43	1.77	0.77
18003	ALLEN	160.02	13.19	10.90
18005	BARTHOLOMEW	25.07	2.97	1.96
18007	BENTON	4.20	1.60	0.32
18009	BLACKFORD	3.39	0.96	0.21
18011	BOONE	35.54	3.11	2.60
18013	BROWN	7.55	0.28	1.61
18015	CARROLL	8.33	2.37	1.51
18017	CASS	17.70	3.71	1.61
18019	CLARK	27.66	8.68	2.18
18021	CLAY	9.33	1.48	1.12
18023	CLINTON	9.48	2.39	1.02
18025	CRAWFORD	2.85	1.56	0.55
18027	DAVIESS	8.36	2.21	0.92
18029	DEARBORN	11.70	1.95	0.96
18031	DECATUR	13.30	1.52	0.90
18033	DE KALB	12.78	5.55	1.40
18035	DELAWARE	138.60	5.64	9.29
18037	DUBOIS	12.40	2.73	1.26
18039	ELKHART	69.89	10.32	6.19
18041	FAYETTE	5.67	1.38	0.66
18043	FLOYD	24.53	2.17	1.54
18045	FOUNTAIN	9.75	2.20	1.55
18047	FRANKLIN	6.54	0.99	1.03
18049	FULTON	8.09	1.38	1.21
18051	GIBSON	11.35	3.66	1.83
18053	GRANT	18.67	2.63	1.67
18055	GREENE	10.54	1.61	1.43
18057	HAMILTON	92.66	5.86	6.14
18059	HANCOCK	19.86	2.57	1.72
18061	HARRISON	8.82	2.65	0.93
18063	HENDRICKS	28.47	5.01	1.98
18065	HENRY	13.73	2.61	1.32
18067	HOWARD	28.29	3.26	2.26
18069	HUNTINGTON	13.43	2.95	1.51
18071	JACKSON	11.89	2.93	1.11
18073	JASPER	9.95	2.69	0.94
18075	JAY	6.37	1.53	0.58
18077	JEFFERSON	9.55	1.55	1.35
18079	JENNINGS	5.51	1.50	0.60
18081	JOHNSON	36.62	2.43	3.02
18083	KNOX	23.65	3.66	2.18
18085	KOSCIUSKO	41.88	6.48	6.14
18087	LAGRANGE	19.55	1.98	4.01
18089	LAKE	176.98	28.82	20.18

FIPS	County	CO	NOX	VOC
18091	LA PORTE	47.22	9.81	5.21
18093	LAWRENCE	12.01	2.44	1.62
18095	MADISON	34.21	4.34	3.22
18097	MARION	306.17	22.68	19.91
18099	MARSHALL	16.90	4.38	2.06
18101	MARTIN	3.85	1.19	0.54
18103	MIAMI	9.72	2.42	1.09
18105	MONROE	46.06	2.86	5.09
18107	MONTGOMERY	13.88	3.42	1.22
18109	MORGAN	21.94	1.61	2.08
18111	NEWTON	6.67	1.56	1.36
18113	NOBLE	18.33	5.47	2.60
18115	OHIO	1.82	0.55	0.20
18117	ORANGE	5.25	0.96	0.91
18119	OWEN	6.34	0.64	0.84
18121	PARKE	6.21	1.16	0.92
18123	PERRY	5.56	2.01	1.08
18125	PIKE	4.20	0.94	0.71
18127	PORTER	73.19	11.37	12.80
18129	POSEY	9.17	4.13	1.35
18131	PULASKI	4.36	1.71	0.49
18133	PUTNAM	9.89	3.10	1.09
18135	RANDOLPH	9.02	2.38	1.05
18137	RIPLEY	8.31	1.77	1.19
18139	RUSH	4.99	2.01	0.37
18141	ST JOSEPH	85.00	9.35	6.71
18143	SCOTT	5.88	0.65	0.67
18145	SHELBY	13.02	2.74	0.91
18147	SPENCER	8.10	3.64	1.02
18149	STARKE	6.90	1.95	0.98
18151	STEUBEN	20.77	1.67	3.68
18153	SULLIVAN	6.41	2.17	1.21
18155	SWITZERLAND	2.26	1.11	0.42
18157	TIPPECANOE	42.50	6.88	3.71
18159	TIPTON	4.14	1.32	0.29
18161	UNION	3.63	1.28	0.67
18163	VANDERBURGH	68.54	7.27	4.65
18165	VERMILLION	5.25	2.09	0.81
18167	VIGO	31.31	5.62	2.93
18169	WABASH	12.59	3.18	1.72
18171	WARREN	3.59	2.10	0.66
18173	WARRICK	10.52	1.61	1.61
18175	WASHINGTON	5.52	1.63	0.53
18177	WAYNE	17.04	3.30	1.62
18179	WELLS	8.41	2.08	0.77
18181	WHITE	11.73	3.19	1.87
18183	WHITLEY	11.85	2.99	1.28
Totals		2,299.16	331.21	221.85

v) Onroad Emissions

Table 5-10 Summerday Onroad Emissions Inventory

FIPS	County	CO	NOX	VOC
18001	ADAMS	20.36	3.10	1.91
18003	ALLEN	197.72	26.60	18.84
18005	BARTHOLOMEW	56.78	8.20	4.98
18007	BENTON	7.54	1.19	0.65
18009	BLACKFORD	6.75	0.99	0.68
18011	BOONE	46.52	6.73	3.72
18013	BROWN	12.35	1.95	1.07
18015	CARROLL	13.58	2.14	1.20
18017	CASS	24.96	3.67	2.34
18019	CLARK	64.85	9.50	5.80
18021	CLAY	23.84	3.57	1.95
18023	CLINTON	27.91	4.10	2.39
18025	CRAWFORD	20.30	3.04	1.43
18027	DAVIESS	15.86	2.37	1.51
18029	DEARBORN	36.79	5.60	2.97
18031	DECATUR	33.80	4.96	2.61
18033	DE KALB	37.83	5.54	3.14
18035	DELAWARE	71.90	10.02	6.66
18037	DUBOIS	27.27	4.06	2.50
18039	ELKHART	118.63	16.43	11.38
18041	FAYETTE	14.24	2.05	1.41
18043	FLOYD	42.84	6.38	3.88
18045	FOUNTAIN	20.74	3.11	1.52
18047	FRANKLIN	17.87	2.76	1.48
18049	FULTON	13.68	2.07	1.27
18051	GIBSON	24.88	3.73	2.18
18053	GRANT	56.55	8.01	5.04
18055	GREENE	22.20	3.39	2.03
18057	HAMILTON	103.30	14.21	9.58
18059	HANCOCK	43.46	6.37	3.72
18061	HARRISON	32.21	4.97	2.53
18063	HENDRICKS	72.90	10.76	6.34
18065	HENRY	46.82	6.97	3.88
18067	HOWARD	42.59	5.98	4.31
18069	HUNTINGTON	39.66	5.78	3.22
18071	JACKSON	41.63	6.03	3.44
18073	JASPER	45.87	6.85	3.42
18075	JAY	13.35	1.99	1.27
18077	JEFFERSON	18.38	2.69	1.79
18079	JENNINGS	19.36	2.98	1.75
18081	JOHNSON	79.67	10.74	7.23
18083	KNOX	23.33	3.31	2.26
18085	KOSCIUSKO	49.28	7.47	4.49

FIPS	County	CO	NOX	VOC
18087	LAGRANGE	38.96	5.97	2.97
18089	LAKE	186.39	31.82	18.71
18091	LA PORTE	91.76	13.33	7.96
18093	LAWRENCE	29.40	4.32	2.77
18095	MADISON	91.22	12.63	8.71
18097	MARION	563.26	67.32	55.50
18099	MARSHALL	31.33	4.72	2.87
18101	MARTIN	6.00	0.94	0.54
18103	MIAMI	21.27	3.11	2.00
18105	MONROE	58.44	8.21	5.71
18107	MONTGOMERY	41.70	6.11	3.33
18109	MORGAN	52.76	7.91	4.63
18111	NEWTON	13.74	2.14	1.14
18113	NOBLE	28.63	4.36	2.64
18115	OHIO	3.11	0.50	0.28
18117	ORANGE	12.67	1.99	1.12
18119	OWEN	13.82	2.17	1.22
18121	PARKE	8.17	1.31	0.76
18123	PERRY	21.74	3.20	1.73
18125	PIKE	10.05	1.59	0.88
18127	PORTER	63.66	12.30	6.10
18129	POSEY	31.40	4.69	2.46
18131	PULASKI	10.44	1.65	0.91
18133	PUTNAM	39.13	5.85	3.11
18135	RANDOLPH	18.52	2.78	1.70
18137	RIPLEY	24.99	3.85	2.02
18139	RUSH	11.99	1.82	1.11
18141	ST JOSEPH	130.46	17.10	12.78
18143	SCOTT	21.79	3.16	1.83
18145	SHELBY	38.80	5.71	3.21
18147	SPENCER	23.66	3.64	1.87
18149	STARKE	15.55	2.45	1.37
18151	STEUBEN	49.55	7.37	3.62
18153	SULLIVAN	12.96	2.03	1.15
18155	SWITZERLAND	5.10	0.82	0.46
18157	TIPPECANOE	84.67	11.80	8.00
18159	TIPTON	10.42	1.60	0.95
18161	UNION	5.62	0.89	0.49
18163	VANDERBURGH	98.73	13.24	9.77
18165	VERMILLION	16.80	2.50	1.37
18167	VIGO	75.17	10.12	7.43
18169	WABASH	21.20	3.05	2.03
18171	WARREN	6.44	1.01	0.56
18173	WARRICK	50.51	7.29	4.17
18175	WASHINGTON	14.95	2.32	1.42
18177	WAYNE	55.43	7.96	4.95
18179	WELLS	14.53	2.19	1.38
18181	WHITE	26.98	4.04	2.12
18183	WHITLEY	20.07	3.04	1.86

FIPS	County	CO	NOX	VOC
	Totals	4,074.23	582.25	371.44

c) County Total Summerday Emissions

Table 5-11 Summerday Emissions - Adams County

Sector	CO	NOx	VOC
Area	0.52	0.54	2.89
Biogenic	1.37	0.76	5.99
Nonroad	8.43	1.77	0.77
On-Road	20.36	3.10	1.91
Point	0.35	0.76	3.50
Total	31.03	6.93	15.06

Table 5-12 Summerday Emissions - Allen County

Sector	CO	NOx	VOC
Area	3.64	3.87	18.76
Biogenic	1.74	0.75	8.86
Nonroad	160.02	13.19	10.90
On-Road	197.72	26.60	18.84
Point	1.13	3.33	9.73
Total	364.24	47.74	67.08

Table 5-13 Summerday Emissions - Bartholomew County

Sector	CO	NOx	VOC
Area	1.15	1.17	6.02
Biogenic	1.58	0.71	11.07
Nonroad	25.07	2.97	1.96
On-Road	56.78	8.20	4.98
Point	2.97	1.69	1.18
Total	87.55	14.74	25.20

Table 5-14 Summerday Emissions - Benton County

Sector	CO	NOx	VOC
Area	0.07	0.07	1.55
Biogenic	1.43	1.00	7.59
Nonroad	4.20	1.60	0.32

On-Road	7.54	1.19	0.65
Point	0.00	0.00	0.01
Total	13.24	3.86	10.12

Table 5-15 Summerday Emissions - Blackford County

Sector	CO	NOx	VOC
Area	0.18	0.16	1.55
Biogenic	1.10	0.60	5.15
Nonroad	3.39	0.96	0.21
On-Road	6.75	0.99	0.68
Point	0.11	0.08	0.44
Total	11.52	2.78	8.03

Table 5-16 Summerday Emissions - Boone County

Sector	CO	NOx	VOC
Area	0.35	0.32	3.63
Biogenic	1.52	0.85	7.27
Nonroad	35.54	3.11	2.60
On-Road	46.52	6.73	3.72
Point			0.01
Total	83.94	11.01	17.24

Table 5-17 Summerday Emissions - Brown County

Sector	CO	NOx	VOC
Area	0.40	0.07	0.79
Biogenic	1.61	0.27	17.77
Nonroad	7.55	0.28	1.61
On-Road	12.35	1.95	1.07
Total	21.91	2.57	21.23

Table 5-18 Summerday Emissions - Carroll County

Sector	CO	NOx	VOC
Area	0.27	0.22	1.62

Biogenic	1.28	0.96	5.79
Nonroad	8.33	2.37	1.51
On-Road	13.58	2.14	1.20
Point	0.01	0.01	1.45
Total	23.47	5.70	11.56

Table 5-19 Summerday Emissions - Cass County

Sector	CO	NOx	VOC
Area	0.59	0.62	3.34
Biogenic	1.24	0.86	6.17
Nonroad	17.70	3.71	1.61
On-Road	24.96	3.67	2.34
Point	6.27	6.84	1.19
Total	50.76	15.69	14.65

Summerday Emissions - Clark County

Sector	CO	NOx	VOC
Area	0.97	0.88	7.25
Biogenic	1.32	0.32	10.34
Nonroad	27.66	8.68	2.18
On-Road	64.85	9.50	5.80
Point	4.95	5.14	4.51
Total	99.75	24.52	30.07

Table 5-20 Summerday Emissions - Clay County

Sector	CO	NOx	VOC
Area	0.30	0.20	2.05
Biogenic	1.67	0.58	12.72
Nonroad	9.33	1.48	1.12
On-Road	23.84	3.57	1.95
Point			0.27
Total	35.14	5.83	18.11

Table 5-21 Summerday Emissions - Clinton County

Sector	CO	NOx	VOC
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Area	0.35	0.39	2.68
Biogenic	1.21	0.95	5.05
Nonroad	9.48	2.39	1.02
On-Road	27.91	4.10	2.39
Point	0.24	0.40	1.34
Total	39.18	8.23	12.48

Table 5-22 Summerday Emissions - Crawford County

Sector	CO	NOx	VOC
Area	0.31	0.04	0.76
Biogenic	1.93	0.29	18.43
Nonroad	2.85	1.56	0.55
On-Road	20.30	3.04	1.43
Total	25.39	4.93	21.18

Table 5-23 Summerday Emissions - Daviess County

Sector	CO	NOx	VOC
Area	0.31	0.25	2.30
Biogenic	1.86	0.85	12.35
Nonroad	8.36	2.21	0.92
On-Road	15.86	2.37	1.51
Point	0.18	0.23	0.47
Total	26.56	5.90	17.54

Table 5-24 Summerday Emissions - De Kalb County

Sector	CO	NOx	VOC
Area	0.90	0.96	3.88
Biogenic	1.43	0.58	7.67
Nonroad	12.78	5.55	1.40
On-Road	37.83	5.54	3.14
Point	2.74	1.81	3.62
Total	55.69	14.45	19.72

Table 5-25 Summerday Emissions - Dearborn County

Sector	CO	NOx	VOC
Area	0.57	0.31	2.02
Biogenic	1.40	0.32	9.60
Nonroad	11.70	1.95	0.96
On-Road	36.79	5.60	2.97
Point	2.27	50.63	2.77
Total	52.73	58.79	18.32

Table 5-26 Summerday Emissions - Decatur County

Sector	CO	NOx	VOC
Area	0.48	0.47	2.44
Biogenic	1.47	0.74	8.43
Nonroad	13.30	1.52	0.90
On-Road	33.80	4.96	2.61
Point	0.07	0.02	1.93
Total	49.11	7.71	16.31

Table 5-27 Summerday Emissions - Delaware County

Sector	CO	NOx	VOC
Area	1.07	1.09	7.70
Biogenic	1.39	0.68	6.70
Nonroad	138.60	5.64	9.29
On-Road	71.90	10.02	6.66
Point	0.46	0.35	0.83
Total	213.42	17.79	31.18

Table 5-28 Summerday Emissions - Dubois County

Sector	CO	NOx	VOC
Area	1.04	1.04	4.72
Biogenic	1.88	0.54	16.40
Nonroad	12.40	2.73	1.26
On-Road	27.27	4.06	2.50
Point	0.72	1.07	8.03
Total	43.31	9.43	32.90

Table 5-29 Summerday Emissions - Elkhart County

Sector	CO	NOx	VOC
Area	3.96	4.48	14.57
Biogenic	1.60	0.68	11.02
Nonroad	69.89	10.32	6.19
On-Road	118.63	16.43	11.38
Point	0.49	0.64	22.09
Total	194.57	32.55	65.24

Table 5-30 Summerday Emissions - Fayette County

Sector	CO	NOx	VOC
Area	0.41	0.40	1.93
Biogenic	1.12	0.57	5.41
Nonroad	5.67	1.38	0.66
On-Road	14.24	2.05	1.41
Point	0.02	0.03	0.28
Total	21.46	4.43	9.68

Table 5-31 Summerday Emissions - Floyd County

Sector	CO	NOx	VOC
Area	0.73	0.73	5.05
Biogenic	1.36	0.27	11.42
Nonroad	24.53	2.17	1.54
On-Road	42.84	6.38	3.88
Point	1.30	21.97	1.09
Total	70.75	31.53	22.98

Table 5-32 Summerday Emissions - Fountain County

Sector	CO	NOx	VOC
Area	0.27	0.23	1.87
Biogenic	1.56	0.92	7.39
Nonroad	9.75	2.20	1.55
On-Road	20.74	3.11	1.52

Point	0.01	0.03	0.88
Total	32.32	6.49	13.21

Table 5-33 Summerday Emissions - Franklin County

Sector	CO	NOx	VOC
Area	0.32	0.14	1.25
Biogenic	1.23	0.47	7.40
Nonroad	6.54	0.99	1.03
On-Road	17.87	2.76	1.48
Point	0.01	0.03	0.01
Total	25.97	4.39	11.17

Table 5-34 Summerday Emissions - Fulton County

Sector	CO	NOx	VOC
Area	0.27	0.26	2.03
Biogenic	1.32	0.84	7.95
Nonroad	8.09	1.38	1.21
On-Road	13.68	2.07	1.27
Point	0.04	0.02	0.28
Total	23.39	4.57	12.73

Table 5-35 Summerday Emissions - Gibson County

Sector	CO	NOx	VOC
Area	0.48	0.42	2.92
Biogenic	1.68	0.78	10.07
Nonroad	11.35	3.66	1.83
On-Road	24.88	3.73	2.18
Point	6.92	132.50	3.91
Total	45.32	141.09	20.91

Table 5-36 Summerday Emissions - Grant County

Sector	CO	NOx	VOC
Area	0.79	0.84	4.96

Biogenic	1.41	0.74	6.64
Nonroad	18.67	2.63	1.67
On-Road	56.55	8.01	5.04
Point	1.30	0.59	2.11
Total	78.73	12.81	20.42

Table 5-37 Summerday Emissions - Greene County

Sector	CO	NOx	VOC
Area	0.44	0.16	1.96
Biogenic	2.02	0.56	16.46
Nonroad	10.54	1.61	1.43
On-Road	22.20	3.39	2.03
Point	0.74	0.68	0.51
Total	35.94	6.40	22.38

Table 5-38 Summerday Emissions - Hamilton County

Sector	CO	NOx	VOC
Area	1.42	1.21	10.04
Biogenic	1.32	0.65	6.46
Nonroad	92.66	5.86	6.14
On-Road	103.30	14.21	9.58
Point	0.46	6.69	0.49
Total	199.16	28.61	32.70

Table 5-39 Summerday Emissions - Hancock County

Sector	CO	NOx	VOC
Area	0.44	0.40	3.79
Biogenic	1.32	0.74	5.62
Nonroad	19.86	2.57	1.72
On-Road	43.46	6.37	3.72
Point	0.10	0.12	0.66
Total	65.18	10.20	15.52

Table 5-40 Summerday Emissions - Harrison County

Sector	CO	NOx	VOC
Area	0.61	0.33	2.23
Biogenic	1.81	0.32	15.94
Nonroad	8.82	2.65	0.93
On-Road	32.21	4.97	2.53
Point	0.03	0.02	0.42
Total	43.48	8.29	22.06

Table 5-41 Summerday Emissions - Hendricks County

Sector	CO	NOx	VOC
Area	0.66	0.56	5.53
Biogenic	1.55	0.73	9.04
Nonroad	28.47	5.01	1.98
On-Road	72.90	10.76	6.34
Point	0.01	0.00	0.11
Total	103.60	17.05	23.00

Table 5-42 Summerday Emissions - Henry County

Sector	CO	NOx	VOC
Area	0.41	0.41	3.65
Biogenic	1.33	0.69	6.01
Nonroad	13.73	2.61	1.32
On-Road	46.82	6.97	3.88
Point	0.23	1.18	0.55
Total	62.52	11.85	15.41

Table 5-43 Summerday Emissions - Howard County

Sector	CO	NOx	VOC
Area	1.30	1.46	5.39
Biogenic	1.08	0.73	4.68
Nonroad	28.29	3.26	2.26
On-Road	42.59	5.98	4.31
Point	0.90	0.71	0.43
Total	74.16	12.14	17.08

Table 5-44 Summerday Emissions - Huntington County

Sector	CO	NOx	VOC
Area	0.55	0.53	2.97
Biogenic	1.40	0.70	6.64
Nonroad	13.43	2.95	1.51
On-Road	39.66	5.78	3.22
Point	17.79	0.21	0.84
Total	72.83	10.17	15.18

Table 5-45 Summerday Emissions - Jackson County

Sector	CO	NOx	VOC
Area	0.79	0.61	4.07
Biogenic	1.78	0.53	16.36
Nonroad	11.89	2.93	1.11
On-Road	41.63	6.03	3.44
Point	0.54	0.62	1.72
Total	56.63	10.72	26.70

Table 5-46 Summerday Emissions - Jasper County

Sector	CO	NOx	VOC
Area	0.26	0.23	3.10
Biogenic	1.58	0.98	12.40
Nonroad	9.95	2.69	0.94
On-Road	45.87	6.85	3.42
Point	3.91	53.87	0.74
Total	61.57	64.61	20.60

Table 5-47 Summerday Emissions - Jay County

Sector	CO	NOx	VOC
Area	0.30	0.28	1.89
Biogenic	1.27	0.72	5.81
Nonroad	6.37	1.53	0.58
On-Road	13.35	1.99	1.27

Point	0.15	0.69	0.33
Total	21.43	5.21	9.87

Table 5-48 Summerday Emissions - Jefferson County

Sector	CO	NOx	VOC
Area	0.53	0.34	2.17
Biogenic	1.39	0.33	11.38
Nonroad	9.55	1.55	1.35
On-Road	18.38	2.69	1.79
Point	3.02	83.38	0.96
Total	32.88	88.30	17.64

Table 5-49 Summerday Emissions - Jennings County

Sector	CO	NOx	VOC
Area	0.44	0.25	1.99
Biogenic	1.72	0.56	14.00
Nonroad	5.51	1.50	0.60
On-Road	19.36	2.98	1.75
Point	5.89	28.04	1.18
Total	32.93	33.33	19.52

Table 5-50 Summerday Emissions - Johnson County

Sector	CO	NOx	VOC
Area	1.07	1.01	8.87
Biogenic	1.39	0.47	10.88
Nonroad	36.62	2.43	3.02
On-Road	79.67	10.74	7.23
Point	0.02	0.02	1.36
Total	118.76	14.68	31.36

Table 5-51 Summerday Emissions - Knox County

Sector	CO	NOx	VOC
Area	0.32	0.25	3.13

Biogenic	1.82	0.89	10.65
Nonroad	23.65	3.66	2.18
On-Road	23.33	3.31	2.26
Point	0.64	8.65	1.56
Total	49.76	16.76	19.79

Table 5-52 Summerday Emissions - Kosciusko County

Sector	CO	NOx	VOC
Area	1.34	1.36	6.95
Biogenic	1.68	0.78	10.06
Nonroad	41.88	6.48	6.14
On-Road	49.28	7.47	4.49
Point	3.33	0.17	3.60
Total	97.52	16.26	31.24

Table 5-53 Summerday Emissions - La Porte County

Sector	CO	NOx	VOC
Area	1.18	1.12	7.10
Biogenic	1.84	0.80	14.32
Nonroad	47.22	9.81	5.21
On-Road	91.76	13.33	7.96
Point	1.68	31.45	2.88
Total	143.68	56.51	37.47

Table 5-54 Summerday Emissions - Lagrange County

Sector	CO	NOx	VOC
Area	0.65	0.60	2.90
Biogenic	1.37	0.64	7.64
Nonroad	19.55	1.98	4.01
On-Road	38.96	5.97	2.97
Point	0.46	2.29	1.51
Total	60.98	11.47	19.04

Table 5-55 Summerday Emissions - Lake County

Sector	CO	NOx	VOC
Area	3.93	4.37	24.78
Biogenic	1.91	0.79	18.59
Nonroad	176.98	28.82	20.18
On-Road	186.39	40.15	15.35
Point	466.11	106.33	19.88
Total	835.32	180.47	98.78

Table 5-56 Summerday Emissions - Lawrence County

Sector	CO	NOx	VOC
Area	0.69	0.45	2.72
Biogenic	1.91	0.42	18.14
Nonroad	12.01	2.44	1.62
On-Road	29.40	4.32	2.77
Point	1.63	11.02	0.32
Total	45.63	18.65	25.57

Table 5-57 Summerday Emissions - Madison County

Sector	CO	NOx	VOC
Area	1.15	1.21	7.64
Biogenic	1.41	0.75	6.35
Nonroad	34.21	4.34	3.22
On-Road	91.22	12.63	8.71
Point	0.51	1.11	1.72
Total	128.49	20.03	27.64

Table 5-58 Summerday Emissions - Marion County

Sector	CO	NOx	VOC
Area	7.73	8.77	45.93
Biogenic	1.34	0.56	7.55
Nonroad	306.17	22.68	19.91
On-Road	563.26	67.32	55.50
Point	20.06	32.50	6.41
Total	898.57	131.84	135.31

Table 5-59 Summerday Emissions - Marshall County

Sector	CO	NOx	VOC
Area	0.68	0.66	3.49
Biogenic	1.53	0.72	10.62
Nonroad	16.90	4.38	2.06
On-Road	31.33	4.72	2.87
Point	0.42	0.04	3.77
Total	50.87	10.52	22.80

Table 5-60 Summerday Emissions - Martin County

Sector	CO	NOx	VOC
Area	0.33	0.08	0.72
Biogenic	1.80	0.35	19.13
Nonroad	3.85	1.19	0.54
On-Road	6.00	0.94	0.54
Point	1.64	0.38	0.20
Total	13.62	2.95	21.12

Table 5-61 Summerday Emissions - Miami County

Sector	CO	NOx	VOC
Area	0.36	0.31	2.72
Biogenic	1.29	0.76	6.27
Nonroad	9.72	2.42	1.09
On-Road	21.27	3.11	2.00
Point	0.04	1.31	1.57
Total	32.68	7.91	13.66

Table 5-62 Summerday Emissions - Monroe County

Sector	CO	NOx	VOC
Area	1.33	1.03	5.97
Biogenic	1.83	0.30	17.70
Nonroad	46.06	2.86	5.09
On-Road	58.44	8.21	5.71

Point	0.66	0.98	1.50
Total	108.31	13.37	35.97

Table 5-63 Summerday Emissions - Montgomery County

Sector	CO	NOx	VOC
Area	0.59	0.56	3.45
Biogenic	1.67	0.96	7.71
Nonroad	13.88	3.42	1.22
On-Road	41.70	6.11	3.33
Point	2.41	2.01	1.32
Total	60.25	13.06	17.02

Table 5-64 Summerday Emissions - Morgan County

Sector	CO	NOx	VOC
Area	0.64	0.41	3.67
Biogenic	1.55	0.42	13.05
Nonroad	21.94	1.61	2.08
On-Road	52.76	7.91	4.63
Point	0.91	13.43	0.29
Total	77.81	23.78	23.72

Table 5-65 Summerday Emissions - Newton County

Sector	CO	NOx	VOC
Area	0.16	0.14	1.73
Biogenic	1.62	1.07	11.78
Nonroad	6.67	1.56	1.36
On-Road	13.74	2.14	1.14
Point	0.04	0.02	0.39
Total	22.22	4.93	16.41

Table 5-66 Summerday Emissions - Noble County

Sector	CO	NOx	VOC
Area	0.93	0.93	4.13

Biogenic	1.39	0.62	7.39
Nonroad	18.33	5.47	2.60
On-Road	28.63	4.36	2.64
Point	2.52	0.12	1.76
Total	51.81	11.49	18.54

Table 5-67 Summerday Emissions - Ohio County

Sector	CO	NOx	VOC
Area	0.07	0.02	0.33
Biogenic	0.88	0.16	5.90
Nonroad	1.82	0.55	0.20
On-Road	3.11	0.50	0.28
Total	5.87	1.23	6.71

Table 5-68 Summerday Emissions - Orange County

Sector	CO	NOx	VOC
Area	0.39	0.19	1.33
Biogenic	1.93	0.43	17.25
Nonroad	5.25	0.96	0.91
On-Road	12.67	1.99	1.12
Point	0.22	2.84	1.27
Total	20.46	6.40	21.87

Table 5-69 Summerday Emissions - Owen County

Sector	CO	NOx	VOC
Area	0.40	0.16	1.44
Biogenic	1.76	0.43	14.75
Nonroad	6.34	0.64	0.84
On-Road	13.82	2.17	1.22
Total	22.32	3.41	18.24

Table 5-70 Summerday Emissions - Parke County

Sector	CO	NOx	VOC
--------	----	-----	-----

Area	0.28	0.10	1.46
Biogenic	1.67	0.71	11.03
Nonroad	6.21	1.16	0.92
On-Road	8.17	1.31	0.76
Point	0.12	2.73	0.04
Total	16.46	6.01	14.20

Table 5-71 Summerday Emissions - Perry County

Sector	CO	NOx	VOC
Area	0.49	0.18	1.30
Biogenic	1.97	0.40	18.41
Nonroad	5.56	2.01	1.08
On-Road	21.74	3.20	1.73
Point	5.83	0.30	0.75
Total	35.60	6.09	23.27

Table 5-72 Summerday Emissions - Pike County

Sector	CO	NOx	VOC
Area	0.23	0.06	0.95
Biogenic	1.85	0.64	14.68
Nonroad	4.20	0.94	0.71
On-Road	10.05	1.59	0.88
Point	3.97	61.97	0.58
Total	20.30	65.20	17.78

Table 5-73 Summerday Emissions - Porter County

Sector	CO	NOx	VOC
Area	1.35	1.35	7.49
Biogenic	1.63	0.63	15.15
Nonroad	73.19	11.37	12.80
On-Road	63.66	14.95	4.85
Point	405.01	80.11	4.70
Total	544.84	108.40	44.98

Table 5-74 Summerday Emissions - Posey County

Sector	CO	NOx	VOC
Area	0.35	0.26	1.92
Biogenic	1.69	0.82	9.47
Nonroad	9.17	4.13	1.35
On-Road	31.40	4.69	2.46
Point	25.34	29.67	3.75
Total	67.95	39.57	18.96

Table 5-75 Summerday Emissions - Pulaski County

Sector	CO	NOx	VOC
Area	0.17	0.13	1.44
Biogenic	1.47	0.93	10.40
Nonroad	4.36	1.71	0.49
On-Road	10.44	1.65	0.91
Point			0.13
Total	16.45	4.42	13.36

Table 5-76 Summerday Emissions - Putnam County

Sector	CO	NOx	VOC
Area	0.48	0.30	2.32
Biogenic	1.70	0.64	11.84
Nonroad	9.89	3.10	1.09
On-Road	39.13	5.85	3.11
Point	0.66	4.44	0.97
Total	51.86	14.33	19.34

Table 5-77 Summerday Emissions - Randolph County

Sector	CO	NOx	VOC
Area	0.31	0.30	2.24
Biogenic	1.52	0.82	7.07
Nonroad	9.02	2.38	1.05
On-Road	18.52	2.78	1.70
Point	0.31	1.82	1.38
Total	29.67	8.10	13.45

Table 5-78 Summerday Emissions - Ripley County

Sector	CO	NOx	VOC
Area	0.49	0.34	2.04
Biogenic	1.48	0.47	10.44
Nonroad	8.31	1.77	1.19
On-Road	24.99	3.85	2.02
Point	0.02	0.08	4.34
Total	35.28	6.51	20.03

Table 5-79 Summerday Emissions - Rush County

Sector	CO	NOx	VOC
Area	0.18	0.16	1.73
Biogenic	1.22	0.67	5.28
Nonroad	4.99	2.01	0.37
On-Road	11.99	1.82	1.11
Point	0.04	0.05	0.22
Total	18.42	4.71	8.69

Table 5-80 Summerday Emissions - Scott County

Sector	CO	NOx	VOC
Area	0.39	0.25	1.69
Biogenic	1.48	0.40	12.82
Nonroad	5.88	0.65	0.67
On-Road	21.79	3.16	1.83
Point	0.04	0.06	0.47
Total	29.57	4.52	17.49

Table 5-81 Summerday Emissions - Shelby County

Sector	CO	NOx	VOC
Area	0.54	0.60	3.29
Biogenic	1.40	0.78	6.77
Nonroad	13.02	2.74	0.91
On-Road	38.80	5.71	3.21

Point	0.89	3.61	1.99
Total	54.65	13.44	16.17

Table 5-82 Summerday Emissions - Spencer County

Sector	CO	NOx	VOC
Area	0.59	0.21	1.78
Biogenic	1.90	0.58	15.08
Nonroad	8.10	3.64	1.02
On-Road	23.66	3.64	1.87
Point	6.63	92.81	1.06
Total	40.89	100.89	20.81

Table 5-83 Summerday Emissions - St Joseph County

Sector	CO	NOx	VOC
Area	2.39	2.65	14.41
Biogenic	1.62	0.64	12.17
Nonroad	85.00	9.35	6.71
On-Road	130.46	17.10	12.78
Point	1.23	5.73	5.71
Total	220.71	35.47	51.78

Table 5-84 Summerday Emissions - Starke County

Sector	CO	NOx	VOC
Area	0.25	0.17	1.96
Biogenic	1.53	0.73	12.54
Nonroad	6.90	1.95	0.98
On-Road	15.55	2.45	1.37
Point	0.04	0.41	0.01
Total	24.28	5.70	16.86

Table 5-85 Summerday Emissions - Steuben County

Sector	CO	NOx	VOC
Area	0.65	0.63	3.48

Biogenic	1.29	0.53	7.11
Nonroad	20.77	1.67	3.68
On-Road	49.55	7.37	3.62
Point			0.08
Total	72.25	10.20	17.96

Table 5-86 Summerday Emissions - Sullivan County

Sector	CO	NOx	VOC
Area	0.25	0.11	1.83
Biogenic	1.92	0.81	13.45
Nonroad	6.41	2.17	1.21
On-Road	12.96	2.03	1.15
Point	2.36	42.75	0.28
Total	23.90	47.86	17.92

Table 5-87 Summerday Emissions - Switzerland County

Sector	CO	NOx	VOC
Area	0.18	0.04	0.57
Biogenic	0.88	0.17	5.90
Nonroad	2.26	1.11	0.42
On-Road	5.10	0.82	0.46
Point			0.13
Total	8.42	2.14	7.48

Table 5-88 Summerday Emissions - Tippecanoe County

Sector	CO	NOx	VOC
Area	1.71	1.79	8.20
Biogenic	1.68	1.10	8.15
Nonroad	42.50	6.88	3.71
On-Road	84.67	11.80	8.00
Point	2.40	6.40	7.82
Total	132.97	27.97	35.89

Table 5-89 Summerday Emissions - Tipton County

Sector	CO	NOx	VOC
Area	0.15	0.13	1.33
Biogenic	0.94	0.64	3.70
Nonroad	4.14	1.32	0.29
On-Road	10.42	1.60	0.95
Total	15.64	3.69	6.27

Table 5-90 Summerday Emissions - Union County

Sector	CO	NOx	VOC
Area	0.08	0.03	0.56
Biogenic	1.00	0.43	5.90
Nonroad	3.63	1.28	0.67
On-Road	5.62	0.89	0.49
Total	10.33	2.64	7.62

Table 5-91 Summerday Emissions - Vanderburgh County

Sector	CO	NOx	VOC
Area	1.84	1.94	10.48
Biogenic	1.61	0.81	8.89
Nonroad	68.54	7.27	4.65
On-Road	98.73	13.24	9.77
Point	1.10	5.85	3.26
Total	171.82	29.11	37.04

Table 5-92 Summerday Emissions - Vermillion County

Sector	CO	NOx	VOC
Area	0.20	0.14	1.37
Biogenic	1.50	0.77	8.93
Nonroad	5.25	2.09	0.81
On-Road	16.80	2.50	1.37
Point	2.87	27.19	2.57
Total	26.63	32.68	15.06

Table 5-93 Summerday Emissions - Vigo County

Sector	CO	NOx	VOC
Area	1.10	0.99	6.62
Biogenic	1.78	0.72	12.70
Nonroad	31.31	5.62	2.93
On-Road	75.17	10.12	7.43
Point	3.45	33.63	6.52
Total	112.81	51.07	36.20

Table 5-94 Summerday Emissions - Wabash County

Sector	CO	NOx	VOC
Area	0.52	0.50	2.43
Biogenic	1.39	0.74	6.79
Nonroad	12.59	3.18	1.72
On-Road	21.20	3.05	2.03
Point	29.73	1.17	1.41
Total	65.43	8.64	14.39

Table 5-95 Summerday Emissions - Warren County

Sector	CO	NOx	VOC
Area	0.10	0.05	1.01
Biogenic	1.43	0.88	6.62
Nonroad	3.59	2.10	0.66
On-Road	6.44	1.01	0.56
Point	0.00	0.02	0.00
Total	11.56	4.07	8.85

Table 5-96 Summerday Emissions - Warrick County

Sector	CO	NOx	VOC
Area	0.63	0.34	3.25
Biogenic	1.88	0.63	15.67
Nonroad	10.52	1.61	1.61
On-Road	50.51	7.29	4.17
Point	64.59	64.34	1.90
Total	128.12	74.20	26.61

Table 5-97 Summerday Emissions - Washington County

Sector	CO	NOx	VOC
Area	0.53	0.27	1.93
Biogenic	1.73	0.46	14.70
Nonroad	5.52	1.63	0.53
On-Road	14.95	2.32	1.42
Point	0.13	0.07	1.45
Total	22.86	4.75	20.03

Table 5-98 Summerday Emissions - Wayne County

Sector	CO	NOx	VOC
Area	0.84	0.89	5.29
Biogenic	1.39	0.70	6.94
Nonroad	17.04	3.30	1.62
On-Road	55.43	7.96	4.95
Point	1.24	4.96	1.56
Total	75.94	17.81	20.36

Table 5-99 Summerday Emissions - Wells County

Sector	CO	NOx	VOC
Area	0.32	0.32	2.32
Biogenic	1.29	0.66	6.06
Nonroad	8.41	2.08	0.77
On-Road	14.53	2.19	1.38
Point	3.15	0.37	0.31
Total	27.70	5.63	10.85

Table 5-100 Summerday Emissions - White County

Sector	CO	NOx	VOC
Area	0.34	0.33	2.60
Biogenic	1.52	1.14	8.13
Nonroad	11.73	3.19	1.87
On-Road	26.98	4.04	2.12

Point	0.08	0.05	0.50
Total	40.66	8.75	15.22

Table 5-101 Summerday Emissions - Whitley County

Sector	CO	NOx	VOC
Area	0.48	0.43	2.47
Biogenic	1.39	0.63	7.10
Nonroad	11.85	2.99	1.28
On-Road	20.07	3.04	1.86
Point	0.63	0.26	1.10
Total	34.42	7.35	13.80

Appendices

Appendix A – Environ Report for Locomotive, Commercial Marine



International Corporation

Air Sciences

(Revised)
FINAL

LADCO NONROAD EMISSION INVENTORY PROJECT FOR LOCOMOTIVE, COMMERCIAL MARINE, AND RECREATIONAL MARINE EMISSION SOURCES

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Appendix B- Pechan, Nonroad Emissions Inventory Project

LADCO NONROAD EMISSIONS INVENTORY PROJECT - DEVELOPMENT OF LOCAL DATA FOR CONSTRUCTION AND AGRICULTURAL EQUIPMENT

FINAL REPORT

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Appendix C – Raw Data

See attached database.

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Base M Strategy Modeling: Emissions (Revised)

The purpose of this document is to summarize the emission estimates prepared for LADCO's latest (Base M) 2005 base year and 2008, 2009, 2012, and 2018 future year modeling. Base year emissions by state and source sector for Base K (2002) and Base M (2005) are compared in Figure 1. A more detailed state and source sector summary is provided in Attachment 1. Additional emission reports are available on the LADCO website: http://www.ladco.org/tech/emis/r5/round5_reports.htm.

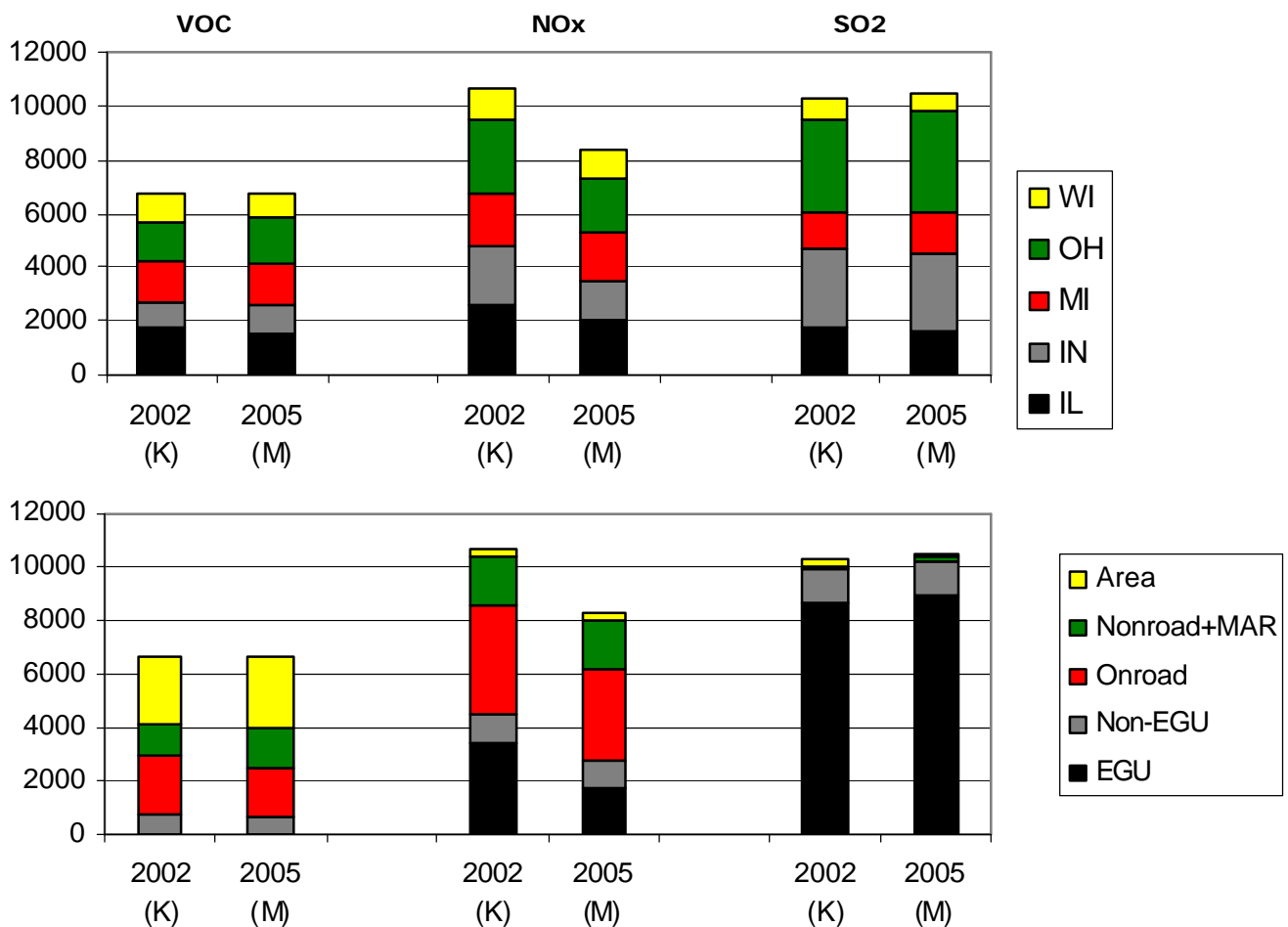


Figure 1. Base K and Base M Emissions for 5-State LADCO Region: VOC, NOx, and SO2 (TPD, July weekday)

Base Year Emissions

In mid-2006, LADCO completed modeling analyses for a 2002 base year and several future year control strategies (LADCO, 2006a and LADCO, 2006b). Following those analyses, a decision was made to conduct additional modeling using a more current base year (2005). Examination of multiple base years provides for a more complete technical assessment. All modeling was conducted in accordance with USEPA modeling guidelines (USEPA, 2007).

For on-road, ammonia, and biogenic sources, 2005 emissions were estimated by emission models. For other sectors in the LADCO States, 2005 emissions were either supplied by a contractor (railroads and commercial marine) or by the States (point sources, area sources, and aircraft). For other sectors in non-LADCO States, a contractor obtained the latest base (2002) and future year emission files (2009, 2018) from the other Regional Planning Organizations (RPOs) (Alpine, 2007a). Specifically, the following versions of these emissions files were used: MANE-VU: Version 3.1, WRAP: Pre2002d, CENRAP: Base F, and VISTAS: Base F. The 2005 emissions were then estimated by linearly interpolating between the 2002 and 2009 emissions.

Further discussion of the development of the 2005 base year emissions is provided below:

On-Road: CONCEPT was run by a contractor using transportation data (e.g., VMT and vehicle speeds) for 24 networks supplied by the state and local planning agencies in the LADCO States and Minnesota (Environ, 2008). These data were first processed with T3 (Travel Demand Modeling [TDM] Transformation Tool) to provide input files for CONCEPT. For some networks, the VMT outputs from T3 were adjusted to match 2005 HPMS data. CONCEPT was then run with meteorological data for a July and January weekday, Saturday, and Sunday (July 15 – 17 and January 16 – 18) to produce link-specific, hourly emission estimates. A spatial plots of emissions for July 15 are provided in Figure 2.

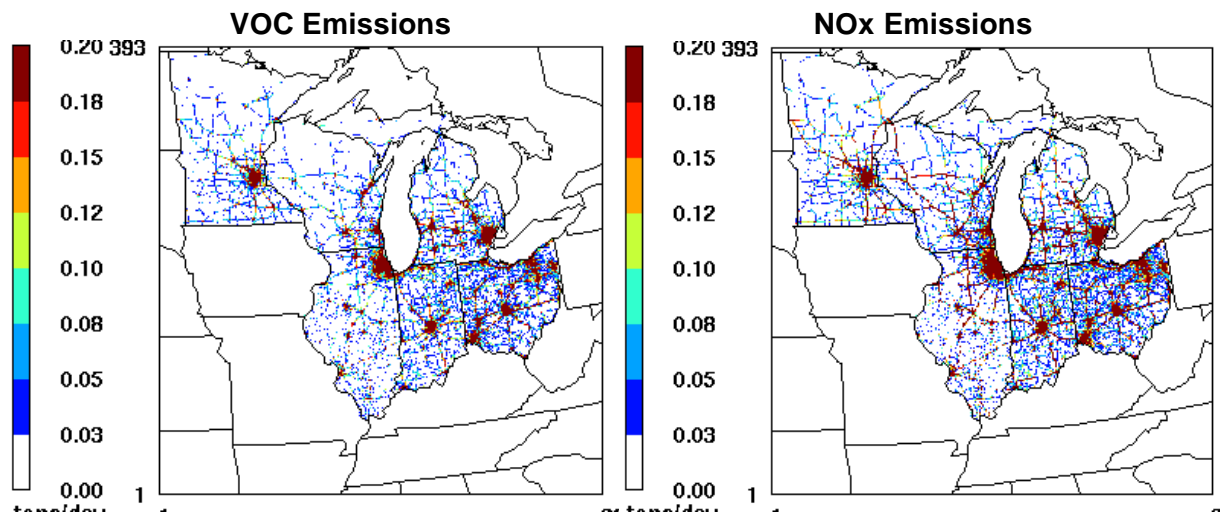


Figure 2. July 15, 2005 motor vehicle emissions for VOC (left) and NOx (right)

For the non-LADCO States, CONCEPT was run by a contractor using RPO-based HPMS county-level data (2002 and 2009) and MOBILE6 inputs (2002) compiled by another contractor (Environ, 2008). HPMS VMT for 2005 were generated by linearly interpolating between the 2002 and 2009 data. The 2002 MOBILE6 inputs were used for the 2005 modeling, with a few adjustments (e.g., fuel sulfur content was set to 30 ppm, as required by the Tier 2/low sulfur regulations). Meteorological data for a July and January weekday, Saturday, and Sunday (July 15 – 17 and January 16 – 18) were used.

For other months (for both LADCO and non-LADCO States), weekday, Saturday, and Sunday emissions were linearly interpolated based on the January and July emissions.

Off-Road: NMIM2005 was run by Grant Hetherington (Wisconsin DNR) to produce emissions for most off-road sectors for the LADCO States plus Minnesota, Iowa, and Missouri. Improved model inputs included local data for construction and agricultural equipment prepared by a contractor were incorporated (E.H. Pechan, 2004), and 2005 gasoline parameters. (Note, model updates prepared by AIR to address evaporative emissions were not included.)

EMS was run by LADCO using Grant Hetherington's NMIM2005 data and, for the non-LADCO States, using emission files supplied by Alpine based on data from the other RPOs to produce weekday, Saturday, and Sunday emissions for each month.

Additional off-road sectors (i.e., commercial marine, aircraft, and railroads [MAR]) were handled separately. Aircraft emissions were supplied by the LADCO States. Updated information for railroads and commercial marine for the LADCO States was prepared by a contractor (Environ, 2007a and Environ 2007b). Table 1 compares the new 2005 emissions with the previous 2002 emission estimates. The new 2005 emissions reflect substantially lower commercial marine emissions and lower locomotive NOx emissions.

EMS was run by LADCO using the contractor and state data and, for the non-LADCO States, using emission files supplied by Alpine based on data from the other RPOs to produce weekday, Saturday, and Sunday emissions for each month.

Table 1. Locomotive and Commercial Marine Emissions for 2002 and 2005 Base Year

	Railroads (TPY)			Commercial Marine (TPY)	
	2002	2005		2002	2005
VOC	7,890	7,625		1,562	828
CO	20,121	20,017		8,823	6,727
NOx	182,226	145,132		64,441	42,336
PM	5,049	4,845		3,113	1,413
SO2	12,274	12,173		25,929	8,637
NH3	86	85		----	----

Area: EMS was run by LADCO using 2005 data supplied by the LADCO States and, for the non-LADCO States, using emission files supplied by Alpine based on data from the other RPOs to produce weekday, Saturday, and Sunday emissions for each month. Special attention was given to two source categories: industrial adhesive and sealant solvent emissions and outdoor wood boilers.

Industrial Adhesives and Sealants: The NEI shows this to be a large VOC emissions category in the LADCO States (i.e., 50,000 TPY). USEPA subsequently determined that "(f)or the Region V states, we no longer believe that there are any activities in the Industrial Adhesives and Sealants category (SCC 2440020000) that have not been inventoried either in the point source Industrial Adhesives and Sealants category or under the Consumer and Commercial Adhesives and Sealants nonpoint category (SCC 2460600000 - all adhesives and sealants)." (USEPA, 2007b). Consequently, this category was omitted from the 2005 regional emissions inventory.

Outdoor Wood Boilers: Over the past several years, the installation and operation of outdoor wood boilers for residential use has increased dramatically in many northern states. Relying on an emission estimation methodology prepared by Bart Sponseller (WDNR, 2006), emissions were calculated by the other states for this category.

EGU Point: EMS was run by LADCO using 2005 data supplied by the LADCO States and, for the non-LADCO States, using emission files supplied by Alpine based on data from the other RPOs to produce weekday, Saturday, and Sunday emissions for each month. 2005 EGU emissions were temporalized for modeling purposes using profiles prepared by Scott Edick (Michigan DEQ) based on CEM data for the period 2004-2006. Profiles were generated for monthly weekday/Saturday/Sunday based on the median hourly emissions for that month, day, and hour of the day for the three years. Over 90% of NOX and SO2 emissions from EGUs in the LADCO states were assigned profiles. In non-Ladco states, the annual EGUs emissions were replaced with the 2005 sum of hourly emissions for all 365 days.

Non-EGU Point: EMS was run by LADCO using 2005 data supplied by the LADCO States and, for the non-LADCO States, using emission files supplied by Alpine based on data from the other RPOs to produce weekday, Saturday, and Sunday emissions for each month. EGUs were removed from this point source file.

Other improvements to the base year inventory included:

Canadian Emissions: Previous modeling inventories for Canadian sources were flawed due to problems with emissions (e.g., LADCO inventories omitted ammonia emissions) or stack parameters (e.g., VISTAS inventories failed to include proper stack parameters, resulting in emissions getting dumped in the surface layer of the model). For Base M, Scott Edick (Michigan DEQ) processed the 2005 Canadian National Pollutant Release Inventory (NPRI – see <http://www.ec.gc.ca/pdb/npri/>). Specifically, a subset of the NPRI data which are relevant to the air quality modeling were reformatted. A number of emission reports are available on the LADCO website (<http://www.ladco.org/tech/emis/basem/canada/index.htm>). Circle plot of point source emissions are presented in Figure 3.

Circle Plot of SO2 Sources
CASE: pt_canada_baseM



Circle Plot of NOX Sources
CASE: pt_canada_baseM



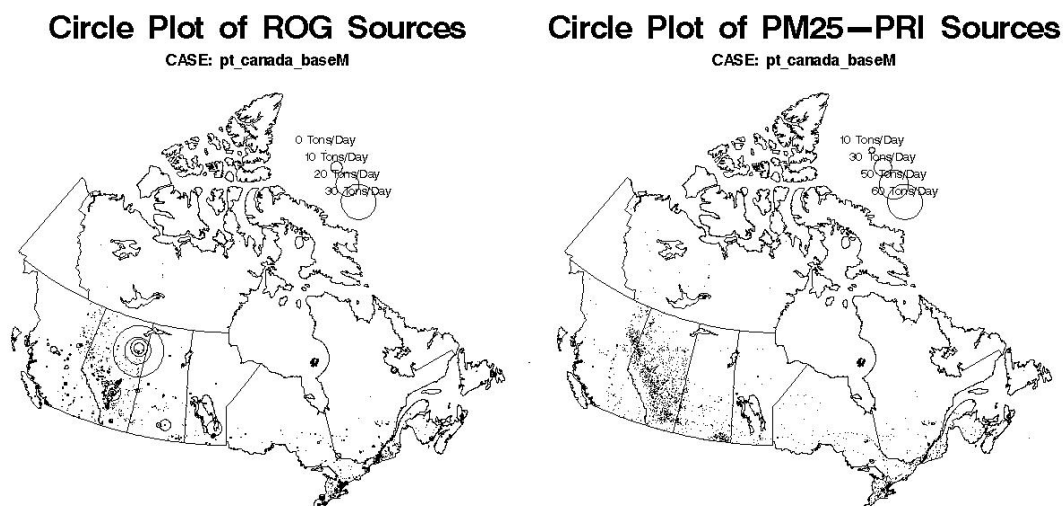


Figure 3. Base year emission plots for Canada

Biogenic Emissions: A contractor provided an updated version of the CONCEPT/MEGAN (Model of Emissions of Gases and Aerosols from Nature – see <http://bai.acd.ucar.edu/Megan/>) biogenics model, which was used to produce base year biogenic emission estimates (Alpine, 2007b). MEGAN includes functions for soil moisture plant stress, a more complete canopy model, full plant growth cycle emissions calculations, and state of the science emission rates.

Subsequent to deliver of the updated CONCEPT/MEGAN code, it was found that more recent data sets and model formulations were available. For the purposes of the Round 5 modeling, LADCO simply scaled the emission estimates from the updated code to reflect these newer data. This resulted in lower emissions for several organic aerosol species and NO_x

Compared to the EMS/BIOME emissions used for Base K, there is more regional isoprene with MEGAN (see Figure 4). Also, with the secondary organic aerosol updates to the CAMx air quality model, Base M includes emissions for monoterpenes and sesquiterpenes, which are precursors of secondary PM_{2.5} organic carbon mass.

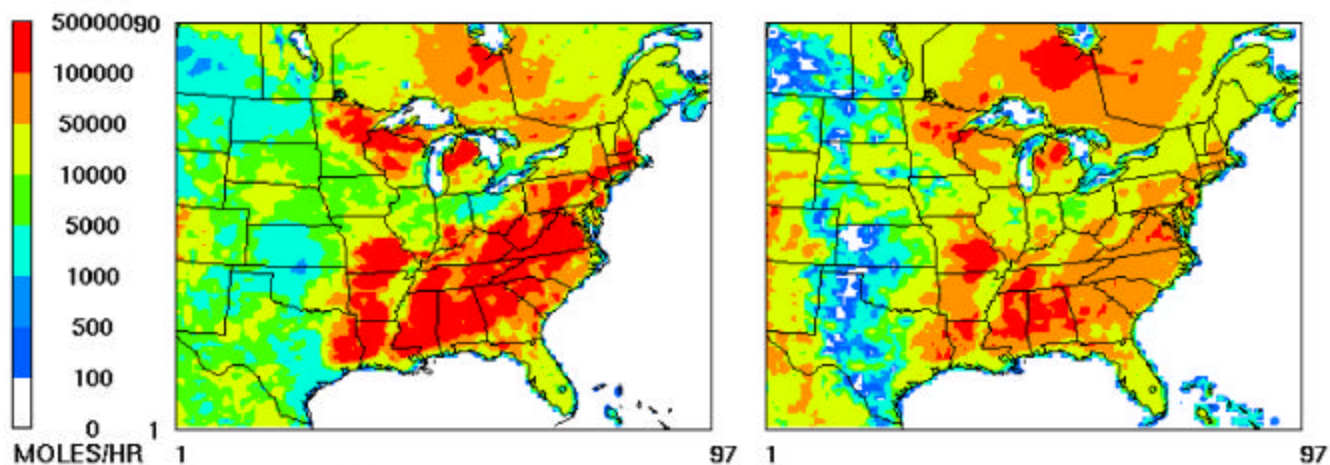


Figure 4. Isoprene emissions for Base M (left) v. Base K (right)

Ammonia Emissions: The CMU-based 2002 (Base K) annual ammonia emissions were projected to 2005 using growth factors from the Round 4 emissions modeling. These annual emissions were then adjusted by applying monthly temporal factors based on the process-based ammonia emissions model (http://www.conceptmodel.org/nh3/nh3_index.html). The model was run for the following list of model farms using 2002 meteorological data: Dairy (California, Wisconsin), Swine (Iowa, Wisconsin), and Beef (Texas, Washington, Wisconsin). Because the model was not complete for the poultry housing model, swine was use in its place given that both use confined operations.

Each model farms' emissions were used to generate monthly average day emissions and a monthly profile. The profiles were applied to geographies most associated with that farm type (e.g., all LADCO states used the Wisconsin farm results). The following figure shows the daily variation in emissions for the model farms.

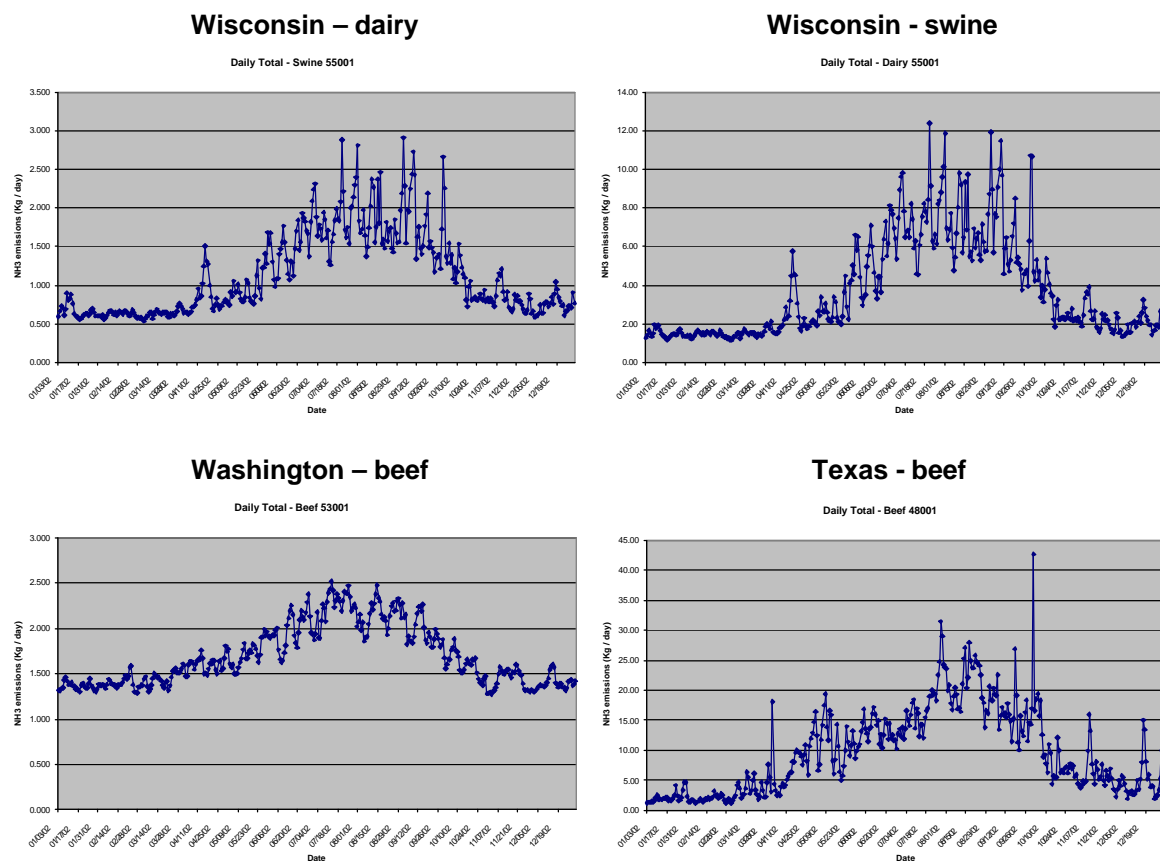


Figure 5. Daily emissions for 2002 for various model farms

A plot of the resulting average daily emissions by state and month is provided in Figure 6.

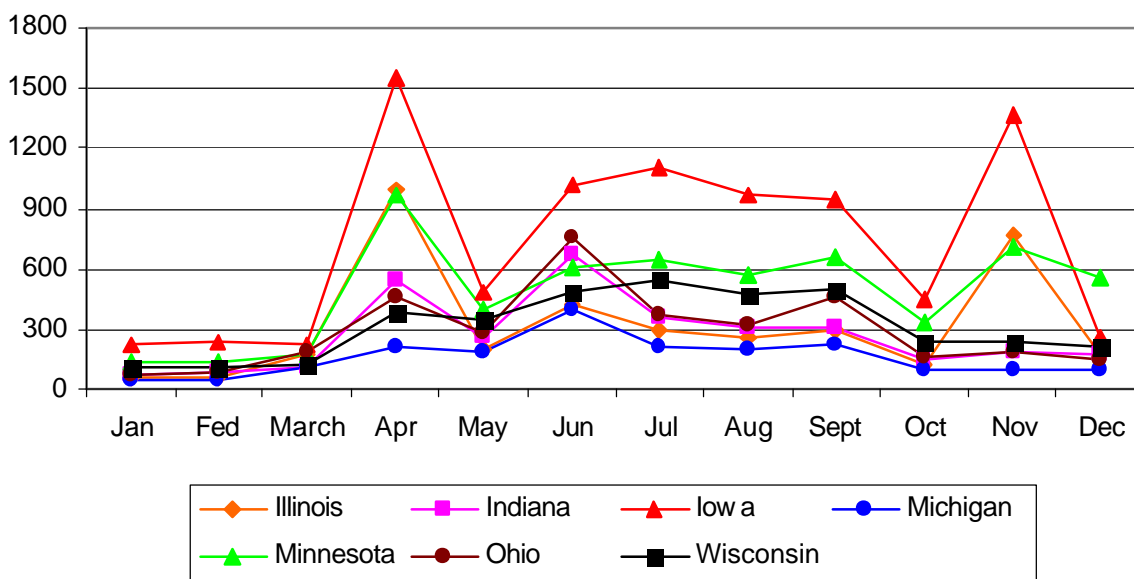


Figure 6. Average daily ammonia emissions for Midwest States by month for 2005

Fires: For Base K, a contractor (EC/R, 2004) developed a 2001, 2002, and 2003 fire emissions inventory for eight Midwest States (five LADCO states plus Iowa, Minnesota, and Missouri), including emissions from wild fires, prescribed fires, and agricultural burns. Projected emissions were also developed for 2010 and 2018 assuming “no smoke management” and “optimal smoke management” scenarios. An early model sensitivity run showed very little difference in modeled $PM_{2.5}$ concentrations. Consequently, the fire emissions were not included in subsequent modeling runs (i.e., they were not in the Base K or Base M modeling inventories).

Future Year Emissions

Complete emission inventories were developed for two future years: 2009 and 2018¹. Source sector emission summaries for the base years (2002 – Base K and 2005 – Base M) and future years are shown in Figure 7. A more detailed state and source sector summary is provided in Attachment 1. Additional emission reports are available on the LADCO website (http://64.27.125.175/tech/emis/r5/round5_reports.htm).

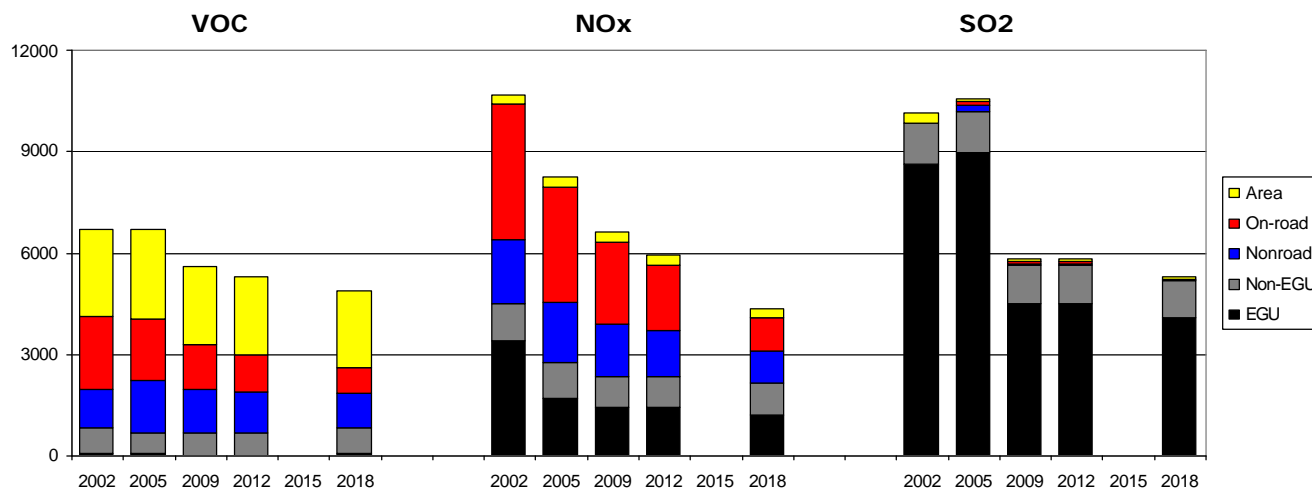


Figure 7. Base year and future year emissions for 5-State LADCO Region (TPD, July weekday)

¹ A 2008 proxy inventory was prepared to support a preliminary 2008 modeling analysis to assess attainment for the basic nonattainment areas (i.e., for areas with a 2009 attainment date, the appropriate panning year is 2008). This inventory reflects the following assumptions:

On-road: scale 2005 base year emissions using the Base K 2002 – 2009 trend (except for the Cincinnati-Dayton area, where 2008 emissions were generated using CONCEPT and 2008 data supplied by the local planning agency)

Off-road and area: scale 2005 base year emissions using the Base K 2002-2009 trend

Point – EGU: use 2005 base year emissions, with slight adjustment (-10%)

Point – Non-EGU: use 2005 base year emissions (note: Base K 2002-2009 trend suggests little change)

Biogenics: use new 2005 base year emissions

A 2012 proxy inventory was prepared to support a preliminary 2012 modeling analysis to assess the effect of further emission reductions from existing controls. This inventory was derived by interpolating between 2009 and 2018 emissions for all sectors, except point sources (for which, the 2009 emissions were used).

For on-road, off-road, and EGU sources, the future year emissions were estimated by models (i.e., CONCEPT, NMIM2005, and IPM, respectively) and then processed by LADCO with EMS. For other sectors (area, MAR, and non-EGU point sources), the future year emissions for the LADCO States were derived by applying growth and control factors to the base year inventory. These factors were developed by a contractor (E.H. Pechan, 2007). Growth factors were based initially on EGAS (version 5.0), and were subsequently modified (for select, priority categories) by examining emissions activity data. For the non-LADCO States, future year emission files were supplied by Alpine based on data from the other RPOs. Due to a lack of information on future year conditions, the biogenic VOC and NO_x emissions, and all Canadian emissions were assumed to remain constant between the base year and future years.

A “base” control scenario was prepared for each future year based on the following “on the books” controls (E.H. Pechan, 2007):

On-Highway Mobile Sources

- Federal motor vehicle emission control program, low sulfur gasoline, and ultra-low sulfur diesel fuel
- Inspection/Maintenance programs (nonattainment areas)
- Reformulated gasoline (nonattainment areas)

Off-Highway Mobile Sources

- Federal control programs incorporated into NONROAD model (e.g., nonroad diesel rule), plus the evaporative Large Spark Ignition and Recreational Vehicle standards
- Heavy-duty diesel (2007) engine standard/Low sulfur fuel
- Federal railroad/locomotive standards
- Federal commercial marine vessel engine standards

Area Sources

- Consumer solvents
- AIM coatings
- Aerosol coatings
- Portable fuel containers

Power Plants

- Title IV (Phases I and II)
- NO_x SIP Call
- Clean Air Interstate Rule
- Clean Air Mercury Rule

Other Point Sources

- VOC 2-, 4-, 7-, and 10-year MACT standards²
- Combustion turbine MACT
- Consent decrees (refineries, ethanol plants, and ALCOA)³

² E.H. Pechan's original control file included EPA-default control factor information. Alternative control factors were developed by Wisconsin for a few MACT categories, and were also applied to the other four LADCO States.

- Other (Illinois and Ohio NOx RACT⁴, and BART in IN and WI)

Further discussion of the development of the future year emissions is provided below:

On-Road: Similar to the base year modeling, CONCEPT was run using transportation data (e.g., VMT and vehicle speeds) supplied by the state and local planning agencies for 2009 and 2018 (Environ, 2008). CONCEPT was only run with meteorological data for a July weekday (July 15). The emissions for Saturday and Sunday were derived by using scaling factors based on the 2005 emissions. The state-level emissions for the five LADCO States plus Minnesota are summarized in Table 2⁵.

For the non-LADCO States, CONCEPT was run by Environ using HPMS county-level data and MOBILE6 inputs compiled by another contractor for VISTAS. Note, the emissions modeling for IA, MO, and OK was redone for 2009 to reflect the state-developed registration distribution data. (The initial modeling for 2009 used national default values for registration distribution assumed by VISTAS' contractor. CENRAP's contractor developed emissions inventories for 2002 and 2018 using the state-developed data. For consistency, Environ's remodeling for these three states for 2009 also used the state-developed data.) Meteorological data for a July weekday (July 15) were used. The emissions for Saturday and Sunday were derived by using scaling factors based on the 2005 emissions.

For other months (for both LADCO and non-LADCO States), January weekday, Saturday, and Sunday emissions were derived based on the July:January ratios for 2005, and then the weekday, Saturday, and Sunday emissions for other months were linearly interpolated based on the January and July emissions.

³ E.H. Pechan's original control file included control factors for three sources in Wayne County, MI. These control factors were not applied in the regional-scale modeling to avoid double-counting with the State's local-scale analysis for PM2.5.

⁴ WI believes that NOx RACT for their sources is already included in the 2005 basecase and EGU "will do" scenario, and IN provided NOx RACT information for inclusion as a no-EGU "may do" scenario.

⁵ For northeastern IL (CATS region), 2009 and 2018 emissions were increases by 9% and 8%, respectively, to reflect newer transportation modeling by CATS.

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Table 2. Summary of On-road Emissions (TPD – July 15, 2005)

Year	State	CO-tpd	TOG-tpd	NOx-tpd	PM2.5-tpd	SO2-tpd	NH3-tpd	Sum of VMT
2005	IL	3,684.3	341.5	748.2	12.9	9.6	35.9	344,087,819.6
	IN	3,384.9	282.0	541.1	8.9	11.1	25.7	245,537,231.9
	MI	4,210.3	351.9	722.0	12.4	13.9	35.3	340,834,025.9
	MN	2,569.1	218.7	380.5	6.3	7.6	17.7	170,024,599.7
	OH	6,113.4	679.8	933.6	16.2	18.8	36.5	360,521,068.6
	WI	2,206.0	175.1	457.5	7.8	9.2	19.7	189,123,964.3
Total		22,168.0	2,049.0	3,782.9	64.5	70.2	170.8	1,650,128,709.9
2009	IL	2,824.4	268.0	527.8	10.1	4.2	38.9	372,132,591.1
	IN	2,839.5	234.9	401.9	6.7	2.8	26.1	249,817,026.3
	MI	3,172.0	269.2	500.9	9.2	4.0	37.1	356,347,010.5
	MN	2,256.8	206.3	307.5	5.1	2.3	21.5	204,443,017.8
	OH	4,619.2	423.7	693.5	11.8	4.7	39.5	387,428,127.2
	WI	1,673.4	119.4	322.1	5.7	2.3	20.6	197,729,964.9
Total		17,385.3	1,521.5	2,753.6	48.7	20.3	183.6	1,767,897,737.8
2018	IL	2,084.7	151.5	200.7	6.3	3.7	43.1	413,887,887.3
	IN	2,217.3	138.4	173.0	4.4	2.6	30.2	288,042,232.1
	MI	2,434.3	163.5	204.1	5.9	3.6	40.5	388,128,431.8
	MN	1,799.6	123.1	137.1	3.6	2.2	24.9	237,022,213.7
	OH	3,361.5	242.5	274.1	6.8	4.0	43.1	421,694,093.4
	WI	1,255.5	68.4	138.5	3.9	2.0	22.2	218,277,167.5
Total		13,152.9	887.5	1,127.5	30.8	18.1	203.9	1,967,052,025.8

EGU Point: Future year emissions were based on EPA's IPM3.0 modeling⁶. Three CAIR scenarios were addressed:

5a: EPA's IPM3.0 was assumed as the future year base for EGUs.

5b: EPA's IPM3.0, with several "will do" adjustments identified by the States. These adjustments should reflect a legally binding commitment (e.g., signed contract, consent decree, or operating permit).⁷

5c: EPA's IPM3.0, with several "may do" adjustments identified by the States. These adjustments reflect less rigorous criteria, but should still be some type of public reality (e.g., BART determination or press announcement).

Table 3 summarizes the SO₂ and NO_x emissions for the three scenarios. The individual facilities affected by the "will do" and "may do" adjustments are identified in Attachment 2. The net effect of these adjustments is a small increase in regional SO₂ and NO_x emissions.

Based on initial discussions with USEPA, a decision was made to use the 2010 IPM emissions in the 2009 modeling. USEPA subsequently insisted that 2009 modeling must represent 2009 conditions. Because 2009 and 2010 EGU NO_x emissions are expected to be similar (note: CAIR Phase I compliance date for NO_x is 2009), the Round 5.1 ozone modeling was not redone.

USEPA believes that 2009 and 2010 EGU SO₂ emissions may be significantly different (note: CAIR Phase I compliance date for SO₂ is 2010). In particular, USEPA noted that information on projected scrubber installations identifies several facilities are not expected to be completed until 2010. A model sensitivity run was conducted with adjusted (higher) EGU SO₂ emissions.

⁶ The second set of new IPM runs by EPA were used. These runs were performed at the request of the RPOs and reflect the addition of run years 2012 and 2018, and the use of four load segments for 2032 to decrease model size (instead of six segments). Comparing the results in this run with EPA's initial v3.0, showed small differences. Below is a quick summary of the run year differences.

EPA Base Case for IPM v.3.0

2010: 2009-2012
2015: 2013-2017
2020: 2018-2022
2025: 2023-2027
2032: 2028-2035

Base Case RPO Run for IPM v3.0 (added 2012 and 2018 run years, 2020 run year merged with the 2025 run year, and four load segments used for the 2032 run year)

2010: 2009-2011
2012: 2012-2012
2015: 2013-2017
2018: 2018-2019
2025: 2020-2028
2032: 2029-2035

⁷ Scenario 5b and 5c also reflect changes in Minnesota, Missouri, and North Dakota.

Table 4 provides information from USEPA's Clean Air Markets Division (CAMD) on scrubber installation dates. This information is based on various sources, including company announcements, consent decrees, vendors, and organizations that track scrubber installations. While there may be uncertainty in any projection of control installations, USEPA considers these adequate projections for SIP planning purposes.

USEPA identified six plants which: (1) are projected in IPM3.0 to have scrubbers in place by 2010 (or 2011), but will not be completed by 2009, and (2) are most likely to impact PM_{2.5} air quality in the upper Midwest (see highlighting in Table 4). To reflect uncontrolled (2009) emissions for those facilities (and units), LADCO substituted actual 2005 emissions for the IPM3.0 projected 2010 emissions. The revised (2009) SO₂ emissions for the six facilities (see Table 5) represent a 5-6% increase in domainwide SO₂ emissions.

Table 3. Comparison of EGU Emissions for Base (5a), Will Do (5b), and Will Do (5c) Scenarios

	2010				2018		
SO₂	5a	5b	5c		5a	5b	5c
IL	958	881	881		869	433	433
IN	1033	1318	1318		1036	1194	1194
MI	667	667	667		725	725	725
OH	1326	1410	1410		983	1127	1127
WI	460	460	421		435	499	235
	4444	4736	4697		4048	3978	3714
MN	162	148	148		187	167	157
NO_x	5a	5b	5c		5a	5b	5c
IL	275	247	247		224	195	195
IN	370	372	372		255	266	266
MI	242	242	242		243	243	243
OH	281	305	305		285	310	310
WI	165	164	155		176	172	145
	1333	1330	1321		1183	1186	1159
MN	116	142	142		132	157	125

Table 4. Facilities Anticipating SO2 Controls in 2009 and 2010

State Name	Plant Name	UniqueID_Final	ORIS Code	Unit ID	Capacity MW	Scrubber OnlineYear	Scrubber OnlineMonth
Alabama	Barry	3_B_5	3	5	768	2010	
Alabama	E C Gaston	26_B_5	26	5	861	2010	
Arizona	Cholla	113_B_3	113	3	271	2009	
Florida	Crystal River	628_B_4	628	4	720	2010	
Florida	Crist	641_B_6	641	6	302	2010	
Florida	Crist	641_B_7	641	7	477	2010	
Florida	Crystal River	628_B_5	628	5	717	2009	5
Florida	Deerhaven Generating Station	663_B_B2	663	B2	228	2009	5
Georgia	Bowen	703_B_1BLR	703	1BLR	713	2010	
Georgia	Wansley	6052_B_2	6052	2	892	2009	5
Georgia	Bowen	703_B_2BLR	703	2BLR	718	2009	4
Indiana	Clifty Creek	983_B_1	983	1	217	2010	
Indiana	Clifty Creek	983_B_2	983	2	217	2010	
Indiana	Clifty Creek	983_B_3	983	3	217	2010	
Indiana	Clifty Creek	983_B_4	983	4	217	2010	
Indiana	Clifty Creek	983_B_5	983	5	217	2010	
Indiana	Clifty Creek	983_B_6	983	6	217	2010	
Indiana	Warrick	6705_B_4	6705	4	300	2010	
Kentucky	Big Sandy	1353_B_BSU2	1353	BSU2	800	2009	11
Kentucky	E W Brown	1355_B_1	1355	1	94	2009	1
Kentucky	E W Brown	1355_B_2	1355	2	160	2009	1
Kentucky	E W Brown	1355_B_3	1355	3	422	2009	1
Kentucky	H L Spurlock	6041_B_1	6041	1	315	2009	
Maryland	Brandon Shores	602_B_1	602	1	643	2010	
Maryland	Brandon Shores	602_B_2	602	2	643	2010	
Maryland	Chalk Point LLC	1571_B_1	1571	1	341	2010	
Maryland	Chalk Point LLC	1571_B_2	1571	2	342	2010	
Maryland	Dickerson	1572_B_1	1572	1	182	2010	
Maryland	Dickerson	1572_B_2	1572	2	182	2010	
Maryland	Dickerson	1572_B_3	1572	3	182	2010	
Maryland	Morgantown Generating Plant	1573_B_1	1573	1	624	2009	
Maryland	Morgantown Generating Plant	1573_B_2	1573	2	620	2009	
Michigan	Monroe	1733_B_4	1733	4	775	2009 (2010?)	
Missouri	Sioux	2107_B_1	2107	1	497	2010	
Missouri	Sioux	2107_B_2	2107	2	497	2010	
New Jersey	PSEG Mercer Gen. Station	2408_B_1	2408	1	315.3	2010	
New Jersey	PSEG Mercer Gen. Station	2408_B_2	2408	2	309.9	2010	
New York	AES Westover	2526_B_11	2526	11	21.85	2010	
New York	AES Westover	2526_B_12	2526	12	21.85	2010	
New York	AES Westover	2526_B_13	2526	13	84	2010	
New York	AES Greenidge LLC	2527_B_4	2527	4	26.5	2010	
New York	AES Greenidge LLC	2527_B_5	2527	5	26.5	2010	
NorthCarolina	Cliffside	2721_B_1	2721	1	38	2010	

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NorthCarolina	Cliffside	2721_B_2	2721	2	38	2010	
NorthCarolina	Cliffside	2721_B_3	2721	3	61	2010	
NorthCarolina	Cliffside	2721_B_4	2721	4	61	2010	
NorthCarolina	Cliffside	2721_B_5	2721	5	550	2010	
NorthCarolina	G G Allen	2718_B_1	2718	1	161.73	2009	5
NorthCarolina	Roxboro	2712_B_1	2712	1	369	2009	
NorthCarolina	G G Allen	2718_B_2	2718	2	161.73	2009	
NorthCarolina	G G Allen	2718_B_3	2718	3	259.77	2009	
NorthCarolina	G G Allen	2718_B_4	2718	4	274.77	2009	
NorthCarolina	G G Allen	2718_B_5	2718	5	265	2009	
NorthCarolina	Mayo	6250_B_1A	6250	1A	361.5	2009	
NorthCarolina	Mayo	6250_B_1B	6250	1B	361.5	2009	
Ohio	W H Sammis	2866_B_6	2866	6	630	2011	
Ohio	W H Sammis	2866_B_7	2866	7	630	2011	
Ohio	R E Burger	2864_B_7	2864	7	156	2010	
Ohio	R E Burger	2864_B_8	2864	8	156	2010	
Ohio	Kyger Creek	2876_B_1	2876	1	217	2010	
Ohio	Kyger Creek	2876_B_2	2876	2	217	2010	
Ohio	Kyger Creek	2876_B_3	2876	3	217	2010	
Ohio	Kyger Creek	2876_B_4	2876	4	217	2010	
Ohio	Kyger Creek	2876_B_5	2876	5	217	2010	
Ohio	Conesville	2840_B_4	2840	4	780	2009	4
Ohio	Bay Shore	2878_B_4	2878	4	215	2009	
Pennsylvania	Cheswick Power Plant	8226_B_1	8226	1	580	2010	
Pennsylvania	Hatfields Ferry Power Station	3179_B_1	3179	1	530	2009	1
Pennsylvania	Hatfields Ferry Power Station	3179_B_2	3179	2	530	2009	1
Pennsylvania	Hatfields Ferry Power Station	3179_B_3	3179	3	530	2009	1
Pennsylvania	Keystone	3136_B_1	3136	1	850	2009	
Pennsylvania	Keystone	3136_B_2	3136	2	850	2009	
Pennsylvania	PPL Brunner Island	3140_B_1	3140	1	321	2009	
Pennsylvania	PPL Brunner Island	3140_B_2	3140	2	378	2009	
Tennessee	Kingston	3407_B_1	3407	1	135	2010	
Tennessee	Kingston	3407_B_2	3407	2	135	2010	
Tennessee	Kingston	3407_B_3	3407	3	135	2010	
Tennessee	Kingston	3407_B_4	3407	4	135	2010	
Tennessee	Kingston	3407_B_5	3407	5	177	2010	
Tennessee	Kingston	3407_B_6	3407	6	177	2010	
Tennessee	Kingston	3407_B_7	3407	7	177	2010	
Tennessee	Kingston	3407_B_8	3407	8	177	2010	
Tennessee	Kingston	3407_B_9	3407	9	178	2010	
Tennessee	Bull Run	3396_B_1	3396	1	881	2009	1
Texas	Fayette Power Project	6179_B_1	6179	1	598	2009	
Texas	Fayette Power Project	6179_B_2	6179	2	598	2009	
Virginia	Chesterfield	3797_B_5	3797	5	310	2010	
Virginia	Yorktown	3809_B_1	3809	1	159	2010	

Table 5. Summary of Adjusted EGU SO₂ Emissions (TPD)

State	Plant	2010 IPM	2005 BY
Indiana	Clifty Creek	41.41	225.32
Missouri	Ameren Sioux	22.25	141.92
Ohio	Kyger Creek	21.53	197.68
Ohio	Sammis	147.97	305.90
Pennsylvania	Cheswick	11.53	103.98
Tennessee	Kingston	41.15	155.20

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ATTACHMENT 1

Emissions Summaries

	VOC	Base M	BaseK	Base M	BaseK	BaseK	Base M	NOx	Base M	BaseK	Base M	BaseK	BaseK	Base M	SOX	Base M	BaseK	Base M	BaseK	BaseK	Base M	PM2.5	Base M	BaseK	Base M	BaseK	BaseK	Base M
July	2002	2005	2009	2009	2012	2018	2018	2002	2005	2009	2009	2012	2018	2018	2002	2005	2009	2009	2012	2018	2018	2002	2005	2009	2009	2012	2018	2018
Nonroad																												
IL	224	321	164	257	149	130	213	324	333	263	275	224	154	155	31	33	5	5	0.6	0.4	0.4		30		24		14	
IN	125	195	94	160	95	95	128	178	191	142	158	141	141	89	17	19	3	3	3	0.3	0.2		17		13		7	
MI	348	414	307	350	276	222	271	205	239	159	197	133	93	112	19	22	3	3	0.5	0.3	0.3		22		18		11	
OH	222	356	161	294	145	126	238	253	304	195	246	162	109	135	23	29	4	5	0.5	0.3	0.4		27		22		13	
WI	214	238	194	203	175	140	157	145	157	114	129	97	69	77	13	15	2	2	0.3	0.2	0.2		14		12		7	
5-State Total	1133	1524	920	1264	840	713	1007	1105	1224	873	1005	757	566	568	103	118	17	18	4.9	1.5	1.5		110		89		52	
U.S. Total	8463	9815	5442	8448		5244	6581	6041	9060	6057	8120		5832	5100	505	654	117	153		104	13		573		750		475	
MAR																												
IL	10	11	10	10	10	10	6	277	246	201	228	195	186	165	0	22	0	19	0	0	17		7		6		4	
IN	5	5	5	5	5	5	3	123	93	89	87	87	84	65	0.2	8	0.2	7	0.2	0.2	6		2		2		2	
MI	7	7	7	7	7	8	7	114	87	112	82	111	110	65	0.6	21	0.7	14	0.7	0.8	8		3		3		2	
OH	8	7	8	7	8	8	5	177	134	128	126	126	122	94	0.4	14	0.3	12	0.3	0.3	10		4		4		2	
WI	4	4	4	4	4	4	3	79	58	59	54	59	57	41	12.7	8	9.5	6	9.5	8.7	5		2		2		1	
5-State Total	34	34	34	33	34	35	24	770	618	589	577	578	559	430	13.9	73	10.7	58	10.7	10	46		18		17		11	
U.S. Total	307	317	321	157	329	346	334	4968	4515	4002	1813	3964	3919	3812	620	512	509	122	509	503	290		147		57		165	
OtherArea																												
IL	679	675	688	594	700	738	582	62	48	68	48	70	73	49	11	11	12	16	12	13	16		40		64		69	
IN	354	391	365	358	373	398	384	62	56	65	58	67	69	59	158	32	150	32	151	153	32		2		2		2	
MI	518	652	516	562	520	541	549	49	49	52	50	53	54	51	71	29	68	29	68	68	28		111		114		120	
OH	546	604	550	506	558	593	487	50	93	59	108	60	62	108	22	6	34	15	35	35	14		19		35		34	
WI	458	315	467	290	474	506	293	32	37	34	37	34	35	37	9	17	9	13	10	10	13		11		12		12	
5-State Total	2555	2637	2586	2310	2625	2776	2295	255	283	278	301	284	293	304	271	95	273	105	276	279	103		183		227		237	
U.S. Total	17876	21093	18638	18683		20512	24300	3856	4899	4100	4220		4418	5357	2075	2947	2062	2559		2189	2709		2735		2621		2570	
On-Road																												
IL	446	341	314	268	260	197	151	890	748	578	528	474	300	201		9		4		3			13		10		6	
IN	405	282	237	235	193	150	138	703	541	425	402	313	187	173		11		3		2			9		7		2	
MI	522	351	335	269	303	217	163	926	722	680	501	619	385	204		14		4		3			12		9		3	
OH	574	680	365	424	340	238	242	1035	934	609	693	512	270	274		18		4		4			16		12		4	
WI	238	175	144	119	117	88	68	481	457	303	322	226	118	138		9		2		2			8		6		2	
5-State Total	2185	1829	1395	1315	1213	890	762	4035	3402	2595	2446	2144	1260	990		61		17		14			58		44		17	
U.S. Total	14263				7825			23499				13170																
EGU																												
IL	9	7	8	6	8	9	7	712	305	227	275	244	231	224	1310	1158	944	958	789	810	869		13		34		77	
IN	6	6	6	6	7	6	6	830	393	406	370	424	283	255	2499	2614	1267	1033	1263	1048	1036		16		73		74	
MI	12	6	11	4	11	12	4	448	393	218	242	219	247	243	1103	1251	1022	667	1031	1058	725		15		25		29	
OH	5	4	6	5	7	7	6	1139	408	330	280	322	271	285	3131	3405	1463	1326	994	701	983		28		94		80	
WI	3	5	3	2	4	4	3	293	213	146	165	139	147	177	602	545	512	460	492	500	435		0		22		25	
5-State Total	35	28	34	23	37	38	26	3422	1712	1327	1332	1348	1179	1184	8645	8973	5208	4444	4569	4117	4048		72		248		285	
U.S. Total	214	140	195	124	197	215	138	14371	10316	7746	7274	7721	7007	6095	31839	34545	20163	16903	17629	14727	14133		685		1131		1571	
Non-EGU																												
IL	313	221	286	218	305	350	258	356	330	334	218	338	343	235	373	423	251	335	257	249	346		16		17		19	
IN	150	130	160	137	170	199	167	238	179	212	175	216	225	178	292	218	270	216	274	290	180		35		36		44	
MI	123	116	115	119	122	139	140	216	240	208	242	214	229	271	162	158	166	148	171	185	163		20		21		25	
OH	77	84	75	87	79	90	104	177	175	157	166	160	167	178	240	289	231	288	210	216	293		27		28		33	
WI	88	84	97	87	104	120	106	98	97	91	93	92	94	81	163	156	154	152	155	156	85		0		0.1		0.1	
5-State Total	751	635	733	648	780	898	775	1085	1021	1002	894	1020	1058	943	1230	1244	1072	1139	1067	1096	1067		98		102		121	
U.S. Total	4087	3877	4409		4700	5378		6446	6730	6129		6435	6952		5759	5630	6093		6340	6970					1444		1777	
IL	1681	1576	1470	1353	1432	1434	1217	2621	2010	1671	1572	1545	1287	1029	1725	1656	1212	1337	1059	1072	1251		119		155		189	
IN	1045	1009	867	901	843	853	826	2134	1453	1339	1250	1248	989	819	2966	2902	1690	1294	1691	1492	1256		81		133		131	
MI	1530	1546	1291	1311	1239	1139	1134	1958	1730	1429	1314	1349	1118	946	1356	1495	1260	865	1271	1312	927		183		190		190	
OH	1432	1735	1165	1323	1137	1062	1082	2831	2048	1478	1619	1342	1001	1074	3416	3761	1732	1650	1240	953	1304		121		195		166	
WI	1005																											

ATTACHMENT 2

“Will Do” and “May Do” EGU Facility Emissions

February 27, 2008

2009 – Difference between base (5a) and “will do” (5b) scenarios

The SAS System

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polid=NOX

Obs	cntryid	stid	cyid	fcid	name	polid	aceebase	aceenew	diff
1	US	17	97	097190AAC	MIDWEST GENERAT	NOX	11.54	6.28	-5.266
2	US	17	197	197810AAK	MIDWEST GENERAT	NOX	21.11	9.46	-11.652
3	US	18	73	00008	NIPSCO - R.M. S	NOX	26.50	24.81	-1.691
4	US	18	77	00001	IKEC - CLIFTY C	NOX	11.58	16.42	4.836
5	US	18	89	00117	NIPSCO - DEAN H	NOX	20.51	19.13	-1.384
6	US	27	37	2703700003	NSP dba Xcel En	NOX	8.03	26.74	18.709
7	US	27	61	2706100004	Minnesota Power	NOX	15.43	18.40	2.969
8	US	27	163	2716300005	Xcel Energy - A	NOX	4.21	5.92	1.718
9	US	29	183	0001	AMERENUE-SIOUX	NOX	28.47	12.81	-15.658
10	US	38	55	126	Coal Creek Stat	NOX	30.49	30.36	-0.132
11	US	38	57	12	Leland Olds Sta	NOX	11.32	36.67	25.348
12	US	38	57	125	Stanton Station	NOX	6.11	6.11	0.002
13	US	38	57	13	Antelope Valley	NOX	33.00	36.39	3.385
14	US	38	57	289	Coyote	NOX	35.12	36.95	1.839
15	US	38	59	172	RM Heskett Stat	NOX	5.45	4.72	-0.727
16	US	38	65	165	M R Young Stati	NOX	6.02	71.10	65.081
17	US	39	93	0247030013	AVON LAKE POWER	NOX	3.98	20.54	16.561
18	US	39	129	0165000006		NOX	.	1.69	.
19	US	55	11	606034110	DAIRYLAND POWER	NOX	19.24	18.96	-0.279
20	US	55	21	111003090	Alliant Energy-	NOX	14.23	17.16	2.927
21	US	55	43	122014530	Alliant Energy-	NOX	7.61	7.77	0.160
22	US	55	59	230006260	WIS ELECTRIC PO	NOX	7.39	14.03	6.647
23	US	55	71	436035930	MANITOWOC PUBLI	NOX	2.06	1.80	-0.259
24	US	55	79	241007690	WIS ELECTRIC PO	NOX	15.25	15.41	0.166
25	US	55	79	241007800	WIS ELECTRIC PO	NOX	7.87	6.07	-1.801
26	US	55	117	460033090	WP & L Alliant	NOX	19.06	11.85	-7.215
27	US	55	123	663020930	DAIRYLAND POWER	NOX	10.47	8.52	-1.955
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polid							382.05	486.07	102.327

February 27, 2008

polid=S02

Obs	cntryid	stid	cyid	fcid	name	polid	aceebase	aceenew	diff
28	US	17	97	097190AAC	MIDWEST GENERAT	SO2	49.91	29.27	-20.636
29	US	17	197	197810AAK	MIDWEST GENERAT	SO2	91.90	62.70	-29.198
30	US	18	29	00002	AMERICAN ELECTR	SO2	66.34	102.72	36.389
31	US	18	43	00004	PSI ENERGY - GA	SO2	25.53	66.01	40.488
32	US	18	73	00008	NIPSCO - R.M. S	SO2	82.52	63.71	-18.817
33	US	18	147	00020	INDIANA MICHIGA	SO2	71.67	198.71	127.042
34	US	18	167	00021	PSI ENERGY - WA	SO2	76.09	175.87	99.786
35	US	27	31	2703100001	Minnesota Power	SO2	12.27	5.75	-6.512
36	US	27	61	2706100004	Minnesota Power	SO2	30.76	20.79	-9.968
37	US	27	163	2716300005	Xcel Energy - A	SO2	5.33	7.11	1.777
38	US	29	183	0001	AMERENUE-SIOUX	SO2	22.25	8.34	-13.903
39	US	38	55	126	Coal Creek Stat	SO2	27.45	75.37	47.926
40	US	38	57	12	Leland Olds Sta	SO2	108.15	126.06	17.906
41	US	38	57	125	Stanton Station	SO2	25.29	12.37	-12.922
42	US	38	57	13	Antelope Valley	SO2	26.60	43.72	17.128
43	US	38	57	289	Coyote	SO2	19.26	53.19	33.932
44	US	38	59	172	RM Heskett Stat	SO2	9.23	30.11	20.872
45	US	38	65	165	M R Young Stati	SO2	27.98	82.23	54.249
46	US	39	81	0641160017	W. H. SAMMIS PL	SO2	147.97	55.61	-92.363
47	US	39	93	0247030013	AVON LAKE POWER	SO2	7.62	127.04	119.417
48	US	39	129	0165000006		SO2	.	16.55	.
49	US	55	21	111003090	Alliant Energy-	SO2	61.97	74.80	12.822
50	US	55	43	122014530	Alliant Energy-	SO2	11.49	42.60	31.111
51	US	55	59	230006260	WIS ELECTRIC PO	SO2	7.39	12.34	4.949
52	US	55	71	436035930	MANITOWOC PUBLI	SO2	5.90	9.95	4.050
53	US	55	79	241007690	WIS ELECTRIC PO	SO2	59.72	41.19	-18.535
54	US	55	79	241007800	WIS ELECTRIC PO	SO2	38.79	21.36	-17.433
55	US	55	123	663020930	DAIRYLAND POWER	SO2	19.56	3.79	-15.772
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polid							1138.93	1569.26	413.785
							=====	=====	=====
							1520.97	2055.32	516.112

February 27, 2008

2009 – Difference between “will do” (5b) and “may do” (5c) scenarios

The SAS System

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----- polid=NOX -----									

Obs	cntryid	stid	cyid	fcid	name	polid	aceebase	aceenew	diff
1	US	19	139	70-01-011	MUSCATINE POWER	NOX	5.649	3.926	-1.7226
2	US	55	9	405031990	WI PUBLIC SERVI	NOX	9.234	7.786	-1.4476
3	US	55	11	606034110	DAIRYLAND POWER	NOX	18.957	18.994	0.0377
4	US	55	21	111003090	Alliant Energy-	NOX	17.158	17.156	-0.0021
5	US	55	25	113004430	MADISON GAS & E	NOX	3.886	2.639	-1.2470
6	US	55	43	122014530	Alliant Energy-	NOX	7.765	7.756	-0.0091
7	US	55	59	230006260	WIS ELECTRIC PO	NOX	14.034	9.826	-4.2074
8	US	55	71	436035930	MANITOWOC PUBLI	NOX	1.800	0.439	-1.3610
9	US	55	79	241007690	WIS ELECTRIC PO	NOX	15.413	15.435	0.0219
10	US	55	79	241007800	WIS ELECTRIC PO	NOX	6.068	6.072	0.0041
11	US	55	117	460033090	WP & L Alliant	NOX	11.847	11.892	0.0456
12	US	55	123	663020930	DAIRYLAND POWER	NOX	8.517	8.482	-0.0343
-----							120.325	110.404	-9.9218
polid									
----- polid=SO2 -----									

Obs	cntryid	stid	cyid	fcid	name	polid	aceebase	aceenew	diff
13	US	19	139	70-01-011	MUSCATINE POWER	SO2	6.237	11.178	4.9415
14	US	55	9	405031990	WI PUBLIC SERVI	SO2	21.750	18.074	-3.6753
15	US	55	21	111003090	Alliant Energy-	SO2	74.796	74.988	0.1924
16	US	55	25	113004430	MADISON GAS & E	SO2	16.331	0.063	-16.2672
17	US	55	43	122014530	Alliant Energy-	SO2	42.604	42.640	0.0362
18	US	55	59	230006260	WIS ELECTRIC PO	SO2	12.336	9.850	-2.4867
19	US	55	71	436035930	MANITOWOC PUBLI	SO2	9.949	3.001	-6.9477
20	US	55	79	241007690	WIS ELECTRIC PO	SO2	41.189	41.210	0.0207
21	US	55	79	241007800	WIS ELECTRIC PO	SO2	21.360	21.430	0.0699
22	US	55	123	663020930	DAIRYLAND POWER	SO2	3.785	3.716	-0.0694
-----							250.336	226.151	-24.1856
polid									
							370.662	336.554	-34.1074