

Bureau of Air 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276

IEPA/BOA/04-019

Illinois Annual Air Quality Report 2003







Governor Rod R. Blagojevich Director Renee Cipriano August 2004

Cover: Since the creation of the Illinois EPA in 1970, Illinois has gained significant achievements in air quality. This has resulted in part by numerous environmental regulations that have been enacted but also through programs developed and implemented through the Illinois Environmental Protection Agency. The photographs featured on the cover of the 2003 Air Quality Report reflect the just a few of those programs.

Top left photograph: Launch of the Illinois Clean School Bus Program. The Illinois EPA is

ILLINOIS ANNUAL AIR QUALITY REPORT 2003

Illinois Environmental Protection Agency Bureau of Air 1021 North Grand Avenue, East P.O. Box 19276 Springfield, IL 62794-9276

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Acknowledgements

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Illinois EPA Bureau of Air personnel contributed their time and expertise to the development of this publication.

A MESSAGE FROM THE DIRECTOR

In 2003, Illinois continued a renewed commitment to improve air quality throughout the State as officials worked to meet all federal air quality standards. This commitment requires the efforts of all Illinoisans -- businesses, state and local officials and individual citizens. Through our efforts, the State will meet air quality standards and residents will continue to enjoy the improved environment Illinois has achieved in the last twenty years.

The 33rd Annual Air Quality Report contains information gathered in 2003 from the Illinois EPA's statewide air-monitoring network, which is made up of more than 200 monitors measuring air pollutants and other toxic compounds. The data contained in the report indicated that Illinois' outdoor air quality in 2003 remained good or moderate 94 percent of the time, a five percent increase from 2002.

The year 2003 was a successful year in which none of the air quality monitors in Illinois recorded exceedances of the federal one-hour standard for ozone. Additionally, the St. Louis Metro East region was redesignated by the U.S. Environmental Protection Agency (U.S. EPA) as meeting the federal one-hour standard for ozone.

On behalf of Governor Rod Blagojevich, the Illinois EPA continues its commitment to improving air quality, serving as a regulator of air pollution sources and a proponent for innovative, proactive programs. Those programs include Partners for Clean Air and Green Pays on Green Days, encouraging residents to do their part to reduce air pollution, and the Illinois Clean School Bus Program, designed to provide a cleaner, healthier environment for Illinois school children. These programs have a real impact on reducing air pollution, and the Illinois EPA looks forward to developing and implementing additional programs to benefit all Illinois residents from the largest cities to the smallest towns. Everyone is entitled to clean air, and it is the mission of the Illinois Environmental Protection Agency to make that a reality.

This document, the 2003 Annual Air Quality report, was designed to provide a

Illinois Annual Air Quality Report 2003

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2003 EXECUTIVE SUMMARY

This report presents a summary of air quality data collected throughout the State of Illinois during the calendar year - 2003. Data is presented for the six criteria pollutants (those for which air quality standards have been developed - particulate matter (PM_{10} and $PM_{2.5}$), ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead) along with some heavy metals, nitrates, sulfates, and volatile organic and toxic compounds. Monitoring was conducted at over 80 different site locations collecting data from more than 200 instruments.

In terms of the Air Quality Index (AQI) air quality during 2003 was either good or moderate more than 94 percent of the time throughout Illinois. There were no days when air quality in some part of Illinois was considered Unhealthy (category Red). There were 19 days (11 for 8-

SECTION 1: AIR POLLUTANTS: SOURCES, HEALTH AND WELFARE EFFECTS

Ozone (O₃)

Photochemical oxidants result from a complex series of atmospheric reactions initiated by sunlight. When reactive (non-methane) hydrocarbons and nitrogen oxides accumulate in the atmosphere and are exposed to the ultraviolet component of sunlight, the formation of new compounds, including ozone and peroxyacetylnitrate, takes place.

Absorption of ultraviolet light energy by nitrogen dioxide results in its dissociation into nitric oxide and an oxygen atom. The oxygen atoms, for the most part, react with atmospheric molecular oxygen (O_2) to form ozone (O_3) . In general, nitric oxide will react with ozone to re-form nitrogen dioxide, completing the cycle. A buildup of ozone above the equilibrium concentration defined by the reaction cycle given above results when nitrogen oxide reacts with non-methane Oxygen atoms from the hydrocarbons. hydrocarbon radical oxidize nitric oxide to nitrogen dioxide without ozone being used up. Thus ozone concentrations are not depleted and can build up quickly.

Ozone can also be formed naturally in the atmosphere by electrical discharge, and in the stratosphere by solar radiation. The former process is not capable of producing significant urban concentrations of this pollutant; however, there is some belief that incursion of ozone from the stratosphere can contribute significantly to elevated ground level concentrations of ozone under certain meteorological conditions.

Injury to vegetation is one of the earliest manifestations of photochemical air pollution, and sensitive plants are useful biological indicators of this type of pollution. The visible symptoms of photochemical oxidant produced injury to plants may be classified as:

- Acute injury, identified by cell collapse with subsequent development of necrotic patterns.
- Chronic injury, identified by necrotic patterns or with other pigmented patterns.
- Physiological effects, identified by growth alterations, reduced yields, and changes in the quality of plant products. The acute symptoms are generally characteristic of a specific photochemical oxidant; though chronic injury patterns are not. Ozone injury to leaves is identified as a stripling or flecking. Adverse effects on sensitive vegetation have been observed from exposure to photochemical oxidant 1008cetsNOVAgatalBoospecifi2i4 Tc xid9i2i4 Tc Scteristic of a

Alterations in airway resistance can occur, especially to those with respiratory diseases (asthma, bronchitis, emphysema). These effects may occur in sensitive individuals, as well as in healthy exercising persons, at short-term ozone concentrations between 0.15 and 0.25 ppm.

Ozone exposure increases the sensitivity of the lung to bronchoconstrictive agents such as histamine, acetylcholine and allergens, as well as increasing the individual's susceptibility to bacterial infection. Simultaneous exposure to ozone and SO deposited in the bronchi are removed by the cilia

given ambient air CO concentration, the COHb level in the blood will reach an equilibrium concentration after a sufficient time period. This equilibrium COHb level will be maintained in the blood as long as the ambient air CO level remains unchanged. However, the COHb level will slowly change in the same direction as the CO concentration of the ambient air as a new equilibrium of CO in the blood is established.

The lowest CO concentrations shown to produce adverse health effects result in aggravation of cardiovascular disease. Studies demonstrate that these concentrations have resulted in decreased exercise time before the onset of pain in the chest and extremities of individuals with heart or circulatory disease. Slightly higher CO levels have been associated with decreases in vigilance, the ability to discriminate time intervals and exercise performance.

		Standard	
Pollutant	Averaging Time	Primary	Secondary
Standard units are microgram	ns per cubic meter (ug/m ³) and particular (ug/m^3)	arts per million (ppm)	
Particulate Matter	Annual Arithmetic Mean	50 ug/m ³	Same as Primary
10 micrometers (PM ₁₀)	24-hour	150 ug/m ³	Same as Primary
Particulate Matter	Annual Arithmetic Mean	15.0 ug/m ³	Same as Primary
2.5 micrometers (PM _{2.5})	24-hour	65 ug/m ³	Same as Primary
Sulfur dioxide	Annual Arithmetic Mean	0.03 ppm	None
	24-hour	0.14 ppm	None
	3-hour	None	0.5 ppm
Carbon Monoxide	1-hour	35 ppm	Same as Primary
	8-hour	9 ppm	Same as Primary

Tabla 1. Sun of National and Illinois Ambient Air Quality Standards

Table 2:	Illinois Air Po	llution Episode	e Levels	
Pollutant	Advisory	Yellow alert	Red Alert	Emergency
Particulate Matter	2-hour	24-hour	24-hour	24-hour
micrograms per cubic meter	420	350	420	500
Sulfur Dioxide	2-hour	4-hour	4-hour	4-hour
parts per million	0.30	0.30	0.35	0.40
Carbon Monoxide	2-hour	8-hour	8-hour	8-hour
parts per million	30	15	30	40
Nitrogen Dioxide	2-hour	1-hour	1-hour	1-hour
parts per million	0.40	0.60	1.20	1.60
		or	or	or
		24-hour 0.15	24-hour 0.30	24-hour 0.40
Ozone parts per million	1-hour	1-hour	1-hour	1-hour
	0.12	0.20	0.30	0.50

SECTION 2: STATEWIDE SUMMARY OF AIR QUALITY FOR 2003

OZONE

Monitoring was conducted at 38 locations during at least part of the April-October "ozone season" and at least 75 percent data capture was obtained at all 38 sites. The Calumet City and Libertyville sites were discontinued.

Two sites (East St. Louis (2) and Edwardsville(1)) recorded hourly concentrations above the 0.12 parts per million (ppm) 1-hour standard. The highest 1-hour concentration was 0.134 ppm in East St. Louis compared with a statewide high 1-hour value of 0.136 ppm in 2002. The highest value recorded in the Chicago area was 0.117 ppm recorded in Evanston compared with a high in 2002 of 0.136 ppm in Zion.

Data is also presented to compare with the 8hour standard of 0.08 ppm. The appropriate statistic for comparison with the 8-hour Standard is the fourth highest value, which is averaged over a three year period. A total of 2 sites in Illinois had fourth high values above 0.08 ppm in 2002 compared with 24 sites in 2002. The highest fourth high value was 0.111 ppm at East St. Louis. The highest level in the Chicago area was 0.099 ppm in Lemont. For the three year period 2001 – 2003, five sites (Chicago-SWFP, Evanston, Waukegan, Alton, and Jerseyville) had fourth high averages above 0.08 ppm.

Figure 1 shows for each year the statewide average of each site's highest hourly ozone value for the ten year period 1994-2003. The graph shows a great deal of year-to-year fluctuation and a fairly flat 10-year trend and slightly downward since 1995 even with the increase in 2002. The Statewide average for 2003 was 0.097 ppm compared with 0.109 ppm in 2002 and 0.099 ppm in 2001.

Statewide, the total number of excursion days in 2002 was six compared with one in 2001 and zero in 2000.



Figure 2 shows the trend of the total number of days on which one or more sites exceeded the ozone standard in Illinois for the same period 1994-2003. This trend is generally flat with a downward trend since 1995.

Overall, Illinois's weather was near normal in terms of meteorological conditions favorable to ozone formation and transport Statewide.

August was the most conducive month in terms of meteorological conditions Statewide followed by July. In terms of conducive days, the Chicago area had 15 percent above the average number and the Metro-East area had the average number.

PARTICULATE MATTER

PM_{2.5}. Valid annual averages were obtained for 32 of the 35 sites. A total of 9 sites recorded averages above 15.0 ug/m^3 , the level of the annual standard compared with 14 sites in 2002 and 16 sites in 2001. The Statewide average of annual averages was 14.1 ug/m³ in 2003 compared with 14.9 ug/m^3 in 2002 and 15.5 ug/m³ in 2001. Figure 3 shows the trend of the Statewide annual averages for PM2.5 for the period 2000-2003. There were no exceedances of the 24-hour standard of 65 ug/m^3 in 2003. The Statewide peak of 56.8 ug/m^3 was recorded in Summit. The Statewide average of the 98th percentile of 24-hour averages was 34.1 ug/m³ in 2003 compared with 33.9 ug/m^3 in 2002 and $35.5 \text{ ug/m}^3 \text{ in } 2001.$

In 2001 there were 17 sites monitoring PM_{10} . The Statewide average in 2003 was 27 ug/m³ compared with 27 ug/m³ in 2002 and 28 ug/m³ in 2001.

ug/m³ in Granite City - 2040 Washington. The lowest annual was 19 ug/m³ in Carbondale. There were no exceedances of the 24-hour primary standard of 150 ug/m³. The highest 24hour average was recorded in Lyons township with a value of 120 ug/m³ compared with a high 24-hour value of 138 ug/m³ at Granite City -2040 Washington in 2001.



Three sites operated only during part of the ozone season as PAMS. Figure 7 depicts the

and manganese. The highest 24-hour average for arsenic was 0.088 ug/m³ measured in Summit. The highest annual average of 0.006 ug/m^3 was recorded at the same site . There were no measurable beryllium 24-hour averages recorded statewide. East St. Louis recorded the highest cadmium concentrations with a maximum 24hour average of 0.038 ug/m^3 and the highest annual average of 0.003 ug/m^3 . The highest 24hour chromium average was 0.047 ug/m³ recorded at Chicago - Washington. Maywood had the highest annual average at 0.012 ug/m^3 . The highest iron and manganese values were recorded in the industrial areas of Granite City and South Chicago and the high traffic areas of Chicago - Cermak and Maywood. The highest 24-hour average for nickel was recorded at Summit with a value of 0.036 ug/m^3 . The highest annual average was in Maywood with an average of 0.010 ug/m^3 . For nitrates the highest 24-hour

0-50	Good (G)	
51-100	Moderate (M)	
101-150	Unhealthy for Sensitive Groups (USG)	
151-200	Unhealthy (UH)	
301 and above		-

 $SO_2 = 23$ CO = 19 $PM_{10} = 41$

Table 4	: AQI Sectors in Illinois
Chicago Metropolitan Area: Lake County Sector	Lake County only
North and West Suburbs Sector	Parts of Cook, Du Page, and Mc Henry Counties north of I-290 (the Eisenhower Expressway) and outside of Chicago city limits.
Chicago Sector	All areas within the city limits of Chicago
South and West Suburbs Sector	Parts of Cook and DuPage Counties south of I-290 and outside of Chicago city limits
Will County/Joliet Sector	Will County only
Aurora-Elgin Sector	The eastern part of Kane County
Downstate areas: Rockford Sector	Approximately 10 mile diameter circle centered on downtown Rockford
Quad Cities Sector	Illinois portion of the Quad Cities Area
Peoria Sector	Approximately 10 mile diameter circle centered on downtown Peoria in parts of Peoria, Woodford and Tazewell Counties
Champaign Sector 8 Tc -0.0128 .5 1.75 TD OrBand NAE280	Champaign-Urbana Metropolitan Area pb7#fa1NemmaIFjrop215tan TAD 01T5c12 Tex(8(TTJ9.Ea Te0f75B355.

Figure 9: 2003 Air Quality Index Summaries by Sector

SECTION 4: STATEWIDE SUMMARY OF POINT SOURCE EMISSIONS

Since the late 1970's, the Division of Air Pollution Control has maintained a database of stationary point source emissions for the entire State. 40 CFR 51.211 requires Illinois to include in its State Implementation Plan "... procedures for requiring owners or operators of stationary sources to maintain records of ... a) Information on the nature and amount of emissions from the stationary source and b) other information as may be necessary..." The emission database maintained by the Division of Air Pollution Control was originally called the Total Air System (TAS). Updates to the database were made through batch transactions every two weeks. In June 1989, the TAS was replaced with an on-line system known as the Emission Inventory System (EIS). Very few new data items to be stored were added when the Division switched to the EIS. The change was mainly to get to an on-line system and to enhance the structure of the database to make it more flexible.

In March, 1999, the Bureau of Air introduced a new emission inventory system known as ISSIS (Illinois Stationary Source Inventory System). This new inventory system, which was developed in Oracle, built upon the structure of the annual emission reporting system (CAERS Computerized Annual Emission Reporting System) previously developed. Up until then, inventory data resided both in EIS and CAERS. Data from EIS was loaded annually into CAERS. ISSIS did away with this requirement. Now inventory data resides in one database.

ISSIS currently includes emission data on approximately 7,500 active sources throughout the State. The ISSIS data includes source addresses, source emission totals, permit data such as expiration date and status, emission unit data such as name, hours of operation, operating rate, fuel parameters and emissions, control equipment data such as control device name, type and removal efficiencies, and stack parameters. Reported emissions and Agency calculated emissions are stored separately. Also in March, 1999, the group responsible for the entry of emission inventory data was switched from the Permit Section to the Inventory Unit of the Compliance and Systems Management Section. The Inventory Unit, now in the Air Quality Planning Section, uses permit applications, the issued permit and data reported on annual emission reports to compile the inventory.

The following tables and graphs are an analysis of the emissions data contained in ISSIS at the end It is important to note emissions of 2003. contained in the ISSIS are not necessarily the actual emissions that entered the atmosphere. This is due to the fact that when an air pollution permit is applied for, the applicant provides maximum and average emission rates. The maximum emission rate reflects what the applicant believes the emission rate would be at maximum production. The average emission rate reflects emissions at the applicant's most probable production rate. In the future, more and more reported data will be incorporated into the inventory.

To calculate the distribution of emissions for the individual categories, the source classification code (SCC) field was used from the ISSIS. The SCC is an eight digit code that breaks emission units into logical categories. SCCs are provided by the USEPA and are included in the Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS). Currently there are approximately 7,000 of these SCCs.

To produce the following tables, the first three digits of the SCC were used. Only categories that contributed significantly to the overall total are listed in the following sections. The complete category breakdown can be found in **Appendix D**.

PARTICULATE MATTER

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SULFUR DIOXIDE



APPENDIX A AIR SAMPLING NETWORK

DESCRIPTION OF THE AIR SAMPLING NETWORK

The Illinois air monitoring network is composed of instrumentation owned and operated by both the Illinois Environmental Protection Agency and by cooperating local agencies. A directory of within Illinois local agencies and the environmental agencies of adjacent states can be found in Table A1. This network has been designed to measure ambient air quality levels in the various Illinois Air Quality Control Regions each AQCR (AQCR). Historically, was classified on the basis of known air pollutant concentrations or, where these were not known, estimated air quality. A map of the AQCR's in Illinois and overlapping into surrounding states can be found at the end of this section.

Many local agencies and volunteers cooperate and support the operation of the Illinois air monitoring network. The network contains both continuous and intermittent instruments. The continuous instruments operate throughout the year, while noncontinuous instruments operate intermittently based on the schedule shown in **Table A2**. This is the official noncontinuous sampling schedule used by the Illinois EPA during 2002.

The Illinois network is deployed along the lines described in the Illinois State Implementation Plan. An updated air monitoring plan is submitted to USEPA each year for review. In accordance with USEPA air quality monitoring requirements as set forth in Title 40 of the <u>Code</u> <u>of Federal Regulations</u>, Part 58 (40 CFR 58), four types of monitoring stations are used to collect ambient air data. The types of stations are distinguished from one another on the basis of the general monitoring objectives they are designed to meet

The SLAMS /NAMS /PAMS/ SPMS designations for the sites operated within the State of Illinois are provided by site in the Site Directory (**Table A4**). All of the industrial sites are considered to be SPMS. **Table A3** is a summary of the distribution of SLAMS/NAMS/PAMS/SPMS by pollutant.

1. State/Local Air Monitoring Station (SLAMS) Network - The SLAMS network is designed to meet a minimum of four basis monitoring objectives:

a. To determine the highest concentrations expected to occur in the area covered by the network.

- b. To determine representative concentrations in areas of high population density.
- c. To determine the air quality impact of significant sources or source categories.
- d. To determine general background concentration levels.
- 2. National Air Monitoring Station (NAMS) Network The NAMS network is a subset of stations selected from the SLAMS network with emphasis given to urban and multisource areas. The primary objectives of the NAMS network are:
 - a. To measure expected maximum concentrations.


b. To measure concentrations in areas where poor air quality is combined with high population exposure.

- c. To provide data useable for the determination of national trends.
- d. To provide data necessary to allow the development of nationwide control strategies.
- 3. Photochemical Assessment Monitoring Station (PAMS) Network The PAMS network is required in serious, severe, and extreme ozone non-attainment areas to obtain detailed data for ozone, precursors (NOx and VOC), and meteorology. VOC and NOx sampling is required for the period June August each year. Ozone sampling occurs during the ozone season, April October. Network design is based on four monitoring types. In Illinois PAMS are required in the Chicago metropolitan area only.
 - a. Type 1 sites are located upwind of the non-attainment area and are located to measure background levels of ozone and precursors coming into the area
 - b. Type 2 sites are located slightly downwind of the major source areas of ozone precursors.
 - c. Type 3 sites are located at the area of maximum ozone concentrations.
 - d. Type 4 sites are located at the domain edge of the non-attainment area and measure ozone and precursors leaving the area.
- 4. Special Purpose Monitoring Station (SPMS) Network Any monitoring site that is not a designated SLAMS or NAMS is considered a special purpose monitoring station. Some of the SPMS network objectives are as follows:
 - a. To provide data as a supplement to stations used in developing local control strategies, including enforcement actions.
 - b. To verify the maintenance of ambient standards in areas not covered by the SLAMS/NAMS network.
 - c. To provide data on noncriteria pollutants.

DISTRIBUTION OF AIR MONITORING INSTRUMENTS

PAMS NAMS SLAMS SPMS TOTAL



AIR QUALITY CONTROL REGIONS

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Statewide Map of Air Monitoring Locations

Table A4					
	SITE I	2003 DIRECTORY			
CITY NAME AIRS CODE	ADDRESS	OWNER/ OPERATOR	UTM	COORD. (km)	EQUIPMENT
65 BURLINGTON - KE	EOKUK INTERSTATE (IA - IL)	0111		
PEORIA COUNTY					
Peoria (1430024)	Fire Station #8 MacArthur & Hurlburt	III. EPA	N. E.	4507.113 279.709	NAMS - SO ₂ , O ₃ SPMS - WS/WD
Peoria (1430036)	Commercial Building 1005 N. University	III. EPA	N. E.	4508.534 279.194	SLAMS - CO
Peoria (1430037)	City Office Building 613 N.E. Jefferson	III. EPA	N. E.	4508.197 281.675	NAMS - PM ₁₀ SLAMS - Pb, PM _{2.5} SPMS - TSP
Peoria Heights (1431001)	Peoria Heights H.S. 508 E. Glen Ave.	III. EPA	N. E.	4513.476 281.660	NAMS - O ₃
TAZEWELL COUNTY					
Pekin (1790004)	Fire Station #3 272 Derby	III. EPA	N. E.	4492.693 275.291	NAMS - SO ₂
66 EAST CENTRAL IL	LINOIS INTRASTATE				
CHAMPAIGN COUNTY					
Bondville (0191001)	SWS Climate Station Twp. Rd. 500 E.	III. EPA/SWS	N. E.	4434.201 382.959	SLAMS - PM _{2.5}
Champaign (0190004)	Booker T. Washington Elem. Sch. 606 E. Grove	III. EPA	N. E.	4442.017 395.248	SLAMS - O ₃ , PM _{2.5}
MCLEAN COUNTY					
Normal (1132003)	University H.S. Main & Gregory	III. EPA	N. E.	4486.625 330.925	SLAMS - PM _{2.5}
Normal (1132003)	ISU Physical Plant Main & Gregory	III. EPA	N. E.	4486.886 330.771	SLAMS – O ₃
67 METROPOLITAN C	CHICAGO INTERSTATI	E (IL - IN)			
COOK COUNTY					
Alsip (0310001)	Village Garage 4500 W. 123rd St.	Cook County DEC	N. E.	4613.287 439.015	SLAMS - O ₃ , Pb, PM ₁₀ SPMS - TSP,WS/WD,PM _{2.5} ⁿ
Bedford Park (0311018)	APC Laboratory 7800 W. 65th St.	Cook County DEC	N. E.	4624.760 432.241	SLAMS - SO ₂ SPMS - WS/WD
Blue Island (0312001)	Eisenhower H.S. 12700 Sacramento	Cook County DEC	N. E.	4612.286 442.003	NAMS - PM ₁₀ SLAMS - SO2 ^d , PM _{2.5}

2003 SITE DIRECTORY

CITY NAME		OWNER/		
AIRS CODE	ADDRESS	OPERATOR	UTM COORD. (km)	EQUIPMENT
COOK COUNTY				
Chicago	Carver H.S.	Cook County DEC	N. 4611.594	NAMS - PM ₁₀
(0310060)	13100 S. Doty		E. 450.911	
Chicago	Cermak Pump Sta.	Cook County DEC	N. 4635.707	SLAMS - Pb
(0310026)	735 W. Harrison		E. 446.469	SPMS - TSP
Chieses			N 4626.006	NAME CO NOMO EO2
(0210062)	220 S. Franklin	III. EFA	N. 4030.090	11,200,100,100,100,200,200,200,200,200,2
(0310003)	SZU S. FTANKIIT		E. 447.303	
Chicago	Com Ed Maintenance Bldg	Cook County DEC	N 4622 217	SLAMS - PMa -/SPEC
(0310076)	7801 Lawndale		F 440.658	
			E. 440.000	SPMS - WSM/D PMa -
				61 100 100/102, 1 102.5
Chicago	Farr Dormitory	Cook County DEC	N. 4631.367	SLAMS - PMor
(0310014)	3300 S. Michigan Ave.		E. 448.202	020
(,				
Chicago	Jardine Water Plant	III. EPA	N. 4638.169	PAMS - NO/NO2, O3, VOC
(0310072)	1000 E. Ohio		E. 449.597	WS/WD, SOL, MET,
· · · · ·				UV, RAIN
Chicago	Mayfair Pump Sta.	Cook County DEC	N. 4645.961	NAMS - Pb
(0310052)	4850 Wilson Ave.		E. 437.866	SLAMS - PM _{2.5}
				SPMS - TSP
Chicago	Sears Tower	III. EPA	N. 4636.320	SPMS - O3
(0310042)	Wacker @ Adams		E. 447.265	
Chicago	Southeast Police Sta.	Cook County DEC	N. 4617.220	NAMS - SO ₂
(0310050)	103rd & Luella		E. 452.700	SLAMS - O3 ^u , PM _{2.5}
			NL 4000 500	
	South Water Filtration Plant	COOK County DEC	N. 4622.596	SLAMS - O3
(0310032)	3300 E. Cheitennam Pl.		E. 404.003	
Chicago	Springfield Pump Sta	Cook County DEC	N 4640 189	SLAMS - PM/SPEC
(0310057)	1745 N Springfield Ave		F 440.009	SPMS - PMn
	Trifo N. Opinigileid. Ave.		L. 440.000	01100 1102.5
Chicago	Taft H.S.	Cook County DEC	N. 4648.125	SLAMS - O2
(0311003)	6545 W. Hurlbut St.		E. 434.392	<u> </u>
()				
Chicago	University of Chicago	Cook County DEC	N. 4626.508	SLAMS - O3
(0310064)	5720 S. Éllis Ave.		E. 450.010	SPMS - SOL
Chicago	Washington H.S.	Cook County DEC	N. 4615.038	SLAMS - Pb, PM _{2.5} , PM ₁₀
(0310022)	3535 E. 114th St.		E. 455.155	SPMS - TSP, PM _{2.5} ⁿ
Cicero	Liberty School	Cook County DEC	N. 4634.780	SLAMS - PM _{2.5}
(0316005)	13 th St. & 50 th Ave.		E. 437.846	

2003 SITE DIRECTORY

CITY NAME AIRS CODE	ADDRESS	OWNER/ OPERATOR	UTM COORD. (km)	EQUIPMENT
COOK COUNTY				
Cicero	Trailer	Cook County DEC	N. 4633.763	NAMS - SO ₂ , NO/NO ₂
(0314002)	1820 S. 51st Ave.		E. 437.541	SLAMS - O ₃ , CO
Des Plaines	Regional Office Building	III EPA	N. 4656.615	SLAMS - O3, PM2.5
(0314007)	9511 W. Harrison St.		E. 428.577	SPMS - PM _{2.5}
Evanston	Water Pumping Sta.	III. EPA	N. 4656.649	NAMS - O3
(0317002)	531 E. Lincoln		E. 444.221	SPMS - WS/WD
Hoffman Estates	Hoffman Estates H.S.	Cook County DEC	N. 4656.069	SPMS - PM25 ⁿ
(0314101)	1100 W. Higgins Rd.	, ,	E. 408.304	2.5
Lemont	Trailer	Cook County DEC	N 4613 184	SLAMS - SOc. Oc
(0311601)	729 Houston		E. 417.532	002, 03
Lyons Township			N 4627 820	
(0311016)	50th St. & Glencoe		E. 430.886	3LAWS - FW10, FW2.5
Maywood	4th District Court Bldg	Cook County DEC	N. 4635.705	NAMS - Pb
(0316003)	1500 Maybrook Dr.		E. 431.435	
Maywood	Com Ed Maintenance	Cook County DEC	N. 4635.695	NAMS - CO
(0316004)	1505 S. First Ave.		E. 431.200	
Maywood (NEW)	4th District Court Bldg	Cook County DEC	N. 4635.994	SPMS - PM10, PM2 5
(0316006)	1500 Maybrook Dr.		E. 431.466	10" 2.5
Midlothian	Bremen High Sch	Cook County DEC	N 4607 103	SLAMS - PM
(0311901)	15205 Crawford Ave.		E. 440.416	
Northbrook	Northbrook Water Plant		N 4665 414	PAMS - O- NO/NO- VOC
(0314201)	750 Dundee Rd.		E. 433.955	WS/WD. SOL. MET
				SLAMS - PM _{2.5} /SPEC ⁿ SPMS - Hg, TOX
Schiller Park	IEPA Trailer	III. EPA	N. 4646.084	SLAMS - CO, NO/NO ₂ , Pb
(0313103)	4743 Mannheim Rd.		E. 427.387	SPMS - TSP, TOX, WS/WD
Summit	Graves Elem. Sch.	Cook County DEC	N. 4625.756	SLAMS - PM10, Pb. PM2 -
(0313301)	60th St. & 74th Ave.	,,,,,,,,,,	E. 433.074	SPMS - TSP
DUPAGE COUNTY				
Lisle	Morton Arboretum	III. EPA	N. 4629.361	SLAMS - O3
(0436001)	Route 53		E. 410.891	SPMS - WSWD
Naperville	City Hall	III. EPA	N. 4624.786	SLAMS - PM2 5
. (0434002)	400 S. Eagle St.		E. 404.208	SPMS - PM _{2.5} ⁿ

2003 SITE DIRECTORY

	122220	OWNER/		
AIRS CODE	ADDRESS	OPERATOR	UTM COORD. (km)	EQUIPMENT
KANE COUNTY				
Elgin	Larsen Junior H.S.	III. EPA	N. 4655.844	NAMS - O2
(0890005)	665 Dundee Rd.		E. 394.654	
()				
Elgin	McKinley School	III. EPA	N. 4655.941	SLAMS - PM2 5
(0890003)	258 Lovell St.		E. 394.048	2.0
LAKE COUNTY				
Waukegan	North Fire Station	III. EPA	N. 4693.854	NAMS - O ₃
(0971002)	Golf & Jackson Sts.		E. 430.744	
			N 4704 705	
Zion (0074.007)	Camp Logan	III. EPA	N. 4701.795	PAMS - O_3 , NO/NO ₂ , VOC
(0971007)	minois Beach State Park		E. 433.407	
				SLAWS - FW2.5
Mc HENRY COUNTY				
Cary	Cary Grove H.S.	III. EPA	N. 4674.900	NAMS - O3
(1110001)	1st St. & Three Oaks Rd.		E. 397.486	SLAMS - PM _{2.5}
WILL COUNTY				
Braidwood	Com Ed Training Center	III. EPA	N. 4563.825	PAMS - O_3 , NO/NO ₂ ,
(1971011)	36400 S. Essex Road		E. 400.172	WS/WD, SOL, MET
				SLAMS - PM _{2.5}
loliet	Pershing Elem, Sch		N 4597 636	NAMS - PM10
(1971002)	Midland & Campbell Sts.		E. 406.854	SLAMS - PMb r
()				0202.5
Joliet	Water Plant West	III. EPA	N. 4590.279	NAMS - SO2
(1970013)	Rte. 6 & Young Rd.		E. 401.284	L
South Lockport	Fitness Forum	III. EPA	N. 4602.982	SLAMS - O3
(1971008)	2021 Lawrence		E. 412.039	
Αῦ ΜΕΤΟΛΟΛΙ ΙΤΑΝ	Ι ΟΙΙΑ Ο ΟΙΤΙΕς ΙΝΤΕΡΟ			
07 MEINUPULIIAN	QUAD CITIES INTERS	TALE (IA - IL)		
ROCK ISLAND COUNTY				

	-				
Rock Island	Rock Island Arsenal	III. EPA	N.	4598.661	NAMS - O ₃
(1613002)	32 Rodman Ave.		E.	707.185	SLAMS - PM2.5
					SPMS - WS/WD, SOL

		Table A4			
	CITI	2003			
	5111	L DIKECTORY			
CITY NAME AIRS CODE	ADDRESS	OWNER/ OPERATOR	UTM	COORD. (km)	EQUIPMENT
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)					
MADISON COUNTY					
Alton (1190008)	Clara Barton Elem. Sch. 409 Main St.	III. EPA	N. E.	4308.245 747.375	SLAMS - O ₃
Alton (1192009)	SIU Dental Clinic 1700 Annex. St.	III. EPA	N. E.	4309.690 747.752	SLAMS - PM _{2.5} /SPEC
Edwardsville (1192007)	RAPS Trailer Poag Road	III. EPA	N. E.	4297.793 757.118	SLAMS - O ₃ SPMS - WS/WD, SOL
Granite City (1191007)	Fire Station #1 23rd & Madison	III. EPA	N. E.	4287.661 748.745	SLAMS - PM _{2.5}
Granite City (1190010)	Air Products 15th & Madison	III. EPA	N. E.	4286.516 747.561	NAMS - PM ₁₀ SLAMS - Pb SPMS - TSP
Granite City (1190023)	VFW Building 2040 Washington	III.EPA	N. E.	4287.099 748.427	NAMS - PM ₁₀ SLAMS - PM _{2.5}
Maryville (1191009)	Southwest Cable TV 200 W. Division	III. EPA	N. E.	4290.382 242.680	SLAMS - O ₃
South Roxana (1191010)	S. Roxana Grade Sch. Michigan St.	III. EPA	N. E.	4301.623 755.369	SLAMS - SO ₂
Wood River (1193007)	Water Treatment Plant 54 N. Walcott	III. EPA	N. E.	4305.084 751.138	NAMS - SO ₂ , O ₃ , PM ₁₀ SLAMS - Pb, PM _{2.5} SPMS

]	Table A4			
2003 SITE DIRECTORY					
CITY NAME AIRS CODE	ADDRESS	OWNER/ OPERATOR	UTM	COORD. (km)	EQUIPMENT
ST. CLAIR COUNTY					
East St. Louis (1630010)	RAPS Trailer 13th & Tudor	III. EPA	N. E.	4277.363 747.251	$\begin{array}{l} \text{NAMS - SO}_2, \text{PM}_{10} \\ \text{SLAMS - NO/NO}_2, \text{Pb}, \text{O}_3, \\ \text{PM}_{2.5}, \text{CO} \\ \text{SPMS - TSP,WS/WD,PM}_{2.5} \end{array}$
Swansea 1634001)	Village Maintenance Bldg. 1500 Caseyville Ave.	III. EPA	N. E.	4268.615 239.086	SLAMS - PM _{2.5}
71 NORTH CENTRA	L ILLINOIS INTRASTAT	Έ			
LA SALLE COUNTY					
Jglesby 0990007)	308 Portland Ave.	III. EPA	N. E.	4573.105 328.412	SLAMS - PM _{10,} PM _{2.5} SPMS - SO ₂ ⁿ , WS/WD
73 ROCKFORD - JAN	NESVILLE - BELOIT INT	ERSTATE (IL	- WI)		
WINNEBAGO COUNTY					
₋oves Park 2012003)	Maple Elem. Sch. 1405 Maple Ave.	III. EPA	N. E.	4688.756 332.098	NAMS - O ₃ SPMS - WS/WD
Rockford 2010009)	Walker Elem. Sch. 1500 Post St.	III. EPA	N. E.	4683.537 328.760	NAMS - O ₃
Rockford 2010010)	Fire Dept. Administration Bldg. 204 S. 1st St.	III. EPA	N. E.	4681.324 327.670	SLAMS - PM _{2.5}
Rockford	City Hall	III. EPA	N.	4681.390	SLAMS - CO
2010011)	425 E. State		E.	327.817	
74 SOUTHEAST ILLI	INOIS INTRASTATE				
EFFINGHAM COUNTY					
Effingham (0491001)	Central Junior H.S. Route 45 South	III. EPA	N. E.	4325.158 365.999	SLAMS - O ₃ SPMS - WS/WD ^d , SOL ^d
HAMILTON COUNTY					
Dale (0650001)	Dale Elem. School SR 142	III. EPA	N. E.	4206.452 368.899	SLAMS - O ₃ SPMS - WS/WD ^N
JACKSON COUNTY					
Carbondale	Maintenance BldoTj 8.25 2 re fc	0 Tw (III.D -0.0808 1	Tc 0 Tw (3	65.999) Tj 29	.25 0 TD 0 Tc -0.0435 Tw () Tj

	2003 SITE DIDECTODY				
	SITE DIRECTORY				
	OWNER/				
ADDRESS	OPERATOR	UTM (COORD. (km)	EQUIPMENT	
Division St.	Public Service	N.	4249.965	SPMS - SO2	
	of Indiana	E.	432.444	-	
South of SR-1	Public Service	N.	4246.929	SPMS - SO2	
	of Indiana	E.	427.104	<u>L</u>	
	ADDRESS Division St. South of SR-1	2003 SITE DIRECTORY OWNER/ ADDRESS OWNER/ OPERATOR Division St. Public Service of Indiana South of SR-1 Public Service of Indiana	2003 SITE DIRECTORY OWNER/ ADDRESS OWNER/ OPERATOR Division St. Public Service of Indiana South of SR-1 Public Service of Indiana	2003 SITE DIRECTORY OWNER/ ADDRESS OWNER/ OPERATOR UTM COORD. (km) Division St. Public Service of Indiana N. 4249.965 E. 432.444 South of SR-1 Public Service of Indiana N. 4246.929 E. 427.104	2003 SITE DIRECTORY OWNER/ ADDRESS OWNER/ OPERATOR UTM COORD. (km) EQUIPMENT Division St. Public Service of Indiana N. 4249.965 E. 432.444 SPMS - SO ₂ South of SR-1 Public Service of Indiana N. 4246.929 E. 427.104 SPMS - SO ₂

	Table A4					
	2003 SITE DIRECTORY					
CITY NAME AIRS CODE	OWNER/ ADDRESS OPERATOR UTM COORD. (km) EQUIPMENT					
	Summary of Equipment Codes for the Site Directory					
TSP PM ₁₀ PM _{2.5} SPEC SO ₂ NO NO ₂ CO CO ₂ O ₃ Pb VOC TOX Hg WS/WI SOL MET UV RAIN (n) (d) NEW DISC	 Total Suspended Particulates Particulate Matter (10 microns or smaller) Particulate Matter (2.5 microns or smaller) PM2_5 Speciation Sulfur Dioxide Nitric Oxide Nitric Oxide Carbon Monoxide Carbon Monoxide Carbon Dioxide Ozone Lead Volatile Organic Compounds Toxic Compounds Mercury D Wind Speed and Wind Direction Total Solar Radiation Rainfall Instrument installed during 2003 Site started during 2003 Site discontinued during or at the end of 2003 					
	SLAMS Designations					
NAMS PAMS SLAM SPMS	 - National Air Monitoring Site - Photochemical Assessment Monitoring Site - State and Local Air Monitoring Site - Special Purpose Air Monitoring Site 					
	UTM Coordinates					
N. E.	Northing Coordinate (in kilometers)Easting Coordinate (in kilometers)					

APPENDIX B AIR QUALITY DATA SUMMARY TABLES

criteria, these averages may not be representative of an entire year's air quality. In certain circumstances where even the 75% criteria is met, the number and/or magnitude of short term averages may not be directly comparable from one year to the next because of seasonal distributional differences.

For summary purposes, the data is expressed in the number of figures to which the raw data is validated. Extra figures may be carried in the averaging technique, but the result is rounded to the appropriate number of figures. For example, the values 9, 9, 10 are averaged to give 9; whereas the values 9.0, 9.0, 10.0 are averaged to 9.3. The raw data itself should not be expressed to more significant figures than the sensitivity of the monitoring methodology allows.

In comparing data to the various air quality standards, the data are implicitly rounded to the

2003 OZONE IN EXCESS OF THE PRIMARY STANDARD OF ONE HOUR PER DAY GREATER THAN 0.12 PARTS PER MILLION

			MAXIMUM
STATION	ADDRESS	DATE	VALUE (PPM)
70 METROPOLITAN SI	. LOUIS INTERSTATE (IL - N	MO)	
MADISON COUNTY Edwardsville	Poag Road	August 26	0.128
ST. CLAIR COUNTY East St. Louis	13th & Tudor	July 17 August 26	0.125 0.134

2003 OZONE IN EXCESS OF THE 8-HOUR PRIMARY STANDARD OF 0.08 PARTS PER MILLION

DATE	STATION	ADDRESS	Maximum Value (PPM)
June 18	East St. Louis	13th & Tudor	0.086
June 24	Alton	409 Main St.	0.090
	Jerseyville	Liberty St.	0.095
	Nilwood	Heaton & DuBois	0.090
July 2	Alsip	4500 W. 123rd St.	0.090
	Alton	409 Main St.	0.086
	Braidwood	36400 S. Essex Rd.	0.085
	Des Plaines	9511 W. Harrison	0.085
	Lemont	729 Houston	0.099
	Maryville South Lockport	200 W. Division	0.091
	South Lockport	2021 Lawrence	0.093
July 4	Chicago - SWFP	3300 E. Cheltenham	0.086
409 Main Str5 1	l2 re fEb2añTistom43.5475.5	TD () Tcol35W 0.1543	Tw (409 Main Str5 12

r

St.

	Table B2												
			20 07(03)NE									
		NUMBER (HIGHEST	SAMPLES	3				
		GREATE	R THAN				(parts p	per million	- 1)				
					1-⊢	IOUR			, 8-I	HOUR			
STATION	ADDRESS	0.12 PPM	0.08 PPM	1ST	2ND	3RD	4TH	1ST	2ND	3RD	4TH		
65 BURLINGTON -	KEOKUK INTE	ERSTAT	E (IA - I	L)									
PEORIA COUNTY													
Peoria	Hurlburt & MacArthur	0	0	0.085	0.079	0.076	0.076	0.072	0.071	0.070	0.068		
Peoria Heights	508 E. Glen	0	0	0.091	0.090	0.090	0.083	0.079	0.078	0.078	0.076		
66 EAST CENTRA	L ILLINOIS INT	RASTA	TE										
CHAMPAIGN COUNTY													
Champaign	606 E. Grove	0	0	0.084	0.081	0.081	0.080	0.078	0.077	0.075	0.075		
McLEAN COUNTY													
Normal	Main & Gregory	0	0	0.085	0.082	0.082	0.082	0.078	0.075	0.075	0.074		
67 METROPOLITA	AN CHICAGO IN	NTERST	ATE (II	2 - IN)									
COOK COUNTY													
Alsip	4500 W. 123rd St.	0	1	0.097	0.090	0.088	0.084	0.090	0.080	0.078	0.077		
Chicago - Jardine	1000 E. Ohio	0	1	0.098	0.087	0.085	0.085	0.086	0.078	0.075	0.075		
Chicago - SE Police	103rd & Luella	0	0	0.080	0.079	0.078	0.076	0.073	0.073	0.072	0.069		
Chicago - SWFP	3300 E Cheltenham	0	2	0.095	0.095	0.093	0.091	0.087	0.086	0.080	0.080		
Chicago - Taft	6545 W. Hurlbut	0	0	0.093	0.090	0.088	0.087	0.084	0.078	0.077	0.077		
Chicago - University	5720 S. Ellis	0	0	0.083	0.082	0.079	0.075	0.072	0.069	0.069	0.067		
	1830 S. 51st Ave.	0	0	0.086	0.081	0.081	0.080	0.075	0.072	0.071	0.070		
Des Plaines	9511 W. Harrison	0	1	0.092	0.088	0.085	0.083	0.085	0.075	0.074	0.073		
Evanston	531 Lincoln	0	2	0.117	0.096	0.091	0.090	0.091	0.089	0.082	0.082		
Lemont	729 Houston	0	1	0.109	0.096	0.088	0.080	0.099	0.080	0.076	0.075		
Νοπηργοοκ	750 Dundee Rd.	0	0	0.095	0.091	0.090	0.089	0.084	0.083	0.081	0.080		
DuPAGE COUNTY													
Lisle	Morton Arboretum	0	0	0.090	0.084	0.076	0.074	0.083	0.069	0.067	0.066		
KANE COUNTY													
Elgin	665 Dundee	0	0	0.094	0.091	0.082	0.081	0.078	0.077	0.077	0.076		
LAKE COUNTY													
Waukegan	Golf & Jackson	0	0	0.094	0.093	0.090	0.084	0.081	0.081	0.076	0.074		
Zion	Camp Logan	0	0	0.094	0.094	0.093	0.091	0.084	0.082	0.079	0.078		
MCHENRY COUNTY													
Cary	1st St. & Three Oaks	0	0	0.093	0.087	0.085	0.084	0.084	0.080	0.080	0.079		
Braidwood	36400 S FEED Rd	Ο	1	0.005	0 003	0 087	0.085	በ በዩፍ	0 070	0.075	0 073		
South Lockport	2021 Lawrence	0	1	0.104	0.101	0.087	0.083	0.093	0.080	0.079	0.077		
		-											

Primary 1-Hour Standard 0.12 ppm; 8-Hour Standard 0.08 ppm

	Table B2													
	2003 OZONE													
	NUMBER OF DAYS HIGHEST SAMPLES													
		GREATE	r than				(parts p	per millior	ı)					
					1-⊢	IOUR		8-HOUR						
STATION	ADDRESS	0.12 PPM	0.08 PPM	1ST	2ND	3RD	4TH	1ST	2ND	3RD	4TH			
60 ΜΕΤΡΟΡΟΙ ΙΤΑ	NOUAD CITH	S INTEI	остате		TT)									
09 WIETKOF OLITA	IN QUAD CITII		NOTATE	(IA -)	u <i>L)</i>									
ROCK ISLAND COUNTY														
Rock Island	32 Rodman Ave.	0	0	0.092	0.080	0.079	0.079	0.084	0.074	0.071	0.068			
70 METROPOLITA	AN ST. LOUIS I	NTERST	CATE (II	MO)									
MADISON COUNTY			,											
Alton	409 Main St.	0	5	0.117	0.107	0.102	0.098	0.101	0.095	0.090	0.089			
Edwardsville	Poag Road	1	2	0.128	0.112	0.104	0.094	0.104	0.090	0.082	0.082			
Maryville	200 W. Division	0	4	0.122	0.115	0.109	0.098	0.096	0.095	0.091	0.088			
Wood River	54 N. Walcott	0	3	0.118	0.115	0.102	0.091	0.102	0.101	0.093	0.083			
RANDOLPH COUNTY														
Houston	Twp Rds. 150 & 45	0	0	0.093	0.092	0.091	0.089	0.081	0.078	0.077	0.077			
ST. CLAIR COUNTY														
East St. Louis	0.102 0.091													

2003 PARTICULATE MATTER FINE (PM 2.5) (micrograms per cubic meter)

ANNUAL

			Table H	33					
			2003						
	PA	RTICULATE	MATT	ER FINE (PM ₂ .	5)			
		(microgra	ms per o	cubic meter)				
		SAMPLING	NUMBER	R OF SAMPLES		HIGHEST	SAMPLES		ANNUAL ARITHMETIC
STATION	ADDRESS	FREQUENCY	TOTAL	>65 ug/m ³	1st	2nd	3rd	4th	MEAN
69 METROP	OLITAN QUAD CI	TIES INTERS	STATE	(IA - IL)					
ROCK ISLAN	D COUNTY								
Rock Island	32 Rodman Ave.	6-day	60	0	30.5	30.1	29.0	28.7	12.8
70 METROP	OLITAN ST. LOUI	S INTERSTA	TE (IL	- MO)					
MADISON CO	DUNTY								

2003 SHORT-TERM TRENDS

		Tab	le B4					
		20	003					
	S	HORT-TE	RM TRE	NDS				
	PART	ІСІП АТЕ	MATTE	R (PM a -	·)			
	IAKI	ICULATE		K (1 112.5)			
			AN	NUAL ARITH	METIC MEA	NS (ua/m ³)		
STATION	ADDRESS	1998	1999	2000	2001	2002	2003	
69 METROP(OLITAN QUAD CITIES I	NTERSTA	TE (IA -	IL)				
ROCK ISLAND	COUNTY							
Rock Island	32 Rodman Ave.	-	-	13.6	12.8	11.8	12.8	
70 METROPO	DLITAN ST. LOUIS INTH	ERSTATE	(IL - MC)				
	204284 5s115TET0:0	1 61 8581Wv(2)	20][j 4 0 (5	501K22D-	0 .318 To	: 0 5 258(7 :	5 T GD 4 -	0j 31 7.25B6
MADISON CO	UNIY			16.0	15.0	147	111	-
Alton	1700 Annex St.	-	-	16.0	15.8	14.7	14.1	
Granite City Granite City	2010 Washington	-	+ 20 6	2.06	17.3	10.6	17.3 19.1	
	54 N. Walcott	-	20.0	2.00	19.7	19.0	10.1	
	54 N. Walcott	_	10.7	10.9	15.0	10.1	14.0	
RANDOLPH C	OUNTY							
Houston	Twp Rds. 150 & 45	-	14.5	15.2	12.1	11.6	13.4	
ST. CLAIR CO	UNTY		47.0		47.0	407		
East St. Louis	13th St. & Tudor Ave.	-	17.9	17.4	17.0 15.5	16.7	14.8	
owansea	TOUU Caseyville Ave.	-	-	15.0	15.5	15.1	+	
71 NORTH C	ENTRAL ILLINOIS INT	RASTATE						
LASALLE CO	JNTY							
Oglesby	308 Portland Ave.	-	-	15.2	14.5	14.8	13.0	
73 ROCKFOI	D - IANESVILLE - REL	οιτ ιντει	RSTATE	(П ₋ WЛ	`			
15 NOCKI'UI	ND - JANEN VILLE - DEL		MIAIL		,			
WINNEBAGO (COUNTY							
D a alafa ad	204 S 1st St	_	+	15.0	+	14.8	12.2	

2003 PARTICULATE MATTER (PM

		Tab	le B6									
		20	003									
SHORT-TERM TRENDS												
PARTICULATE MATTER (PM ₁₀)												
	TIC MEANS (ug/m ³)											
STATION	ADDRESS	1998	1999	2000	2001	2002	2003					
65 BURLINGTON	- KEOKUK INTERS	TATE (IA	- IL)									
PEORIA COUNTY Peoria	613 N E lefferson	26	23	24	22	21	25					
Cona	013 N.L. Jellelson	20	25	24	22	21	20					
67 METROPOLIT	AN CHICAGO INTE	RSTATE	IL - IN)									
			· · ·									
COOK COUNTY												
Alsip	4500 W. 123rd St.	30	25	26	27	23	23					
Blue Island	12700 Sacramento	33	30	30	28	27	30					
Chicago - Carver	13100 S. Doty	58	32	+	35	31	33					
Chicago - Washington HS	3535 E. 114th St.	33	-	-	28	24	23					
Lyons Township	50th St. & Glencoe Ave.	35	36	35	38	36	32					
Midlothian	15205 Crawford Ave.	28	25	24	26	23	24					
Summit	60th St. & 74th Ave.	35	34	32	+	31	31					
WILL COUNTY												
		: 00 -					_ /_ /					

5 (

		Та	ble B	7										
	2003 CARBON MONOXIDE (parts per million)													
		NUMBE	R OF SA	MPLES		Н	GHEST SA	AMPLES (p	pm)					
			1-HR	8-HR	1-H0	OUR AVEF	RAGE	8-HC	UR AVEF	RAGE				
STATION	ADDRESS	total 🛪	35 PPM	>9 PPM	1ST	2ND	3RD	1ST	2ND	3RD				
65 BURLINGTON	- KEOKUK INTER	STATE (IA	A - IL)										
PEORIA COUNTY Peoria	1005 N. University	8704	0	0	5.3	4.9	4.0	3.3	2.9	2.7				
67 METROPOLIT	AN CHICAGO INT	ERSTATE	(IL -	IN)										
COOK COUNTY														
Chicago - CTA Building	320 S. Franklin	8584	0	0	3.4	3.2	2.9	2.4	2.1	1.9				
Cicero	1830 S. 51st Ave.	8667	0	0	4.3	4.2	3.8	2.9	2.6	2.3				
Maywood	1505 S. First Ave	8696	0	0	4.7	4.4	4.0	3.5	3.4	3.3				
Schiller Park	4743 N. Mannheim	8644	0	0	3.7	3.6	3.3	2.9	2.2	1.8				
70 METROPOLITA	AN ST. LOUIS INTI	ERSTATE	(IL -	MO)										
St. CLAIR COUNTY														
East St. Louis	13th & Tudor	8699	0	0	4.4	4.1	3.5	3.2	2.4	2.4				
73 ROCKFORD - J	ANL TWO METRE)7602 re f	BT 4	3.5 427	H6 Tc	5 12 re	p 717.5	427H6	R9	Tw ((

l

2003 SULFUR DIOXIDE VALUES IN EXCESS OF THE 24-HOUR PRIMARY STANDARD OF 0.14 PPM OR

N.IE06831

		Table	e B9						
		200)3						
	S	ULFUR I narts per)IOX milli	(IDE ion)					
	(par is per	111111	UII)					
		NUMBER	OF SA	MPLES		HIGHEST	SAMPLES	6	ANNUAL
CTATION		TOTAL	3-HR	24-HR	3-HF	AVG.	24-HR	AVG.	ARITHMETIC
STATION	ADDRE55	TOTAL	> 0.5	> 0.14	151	ZND	151	ZND	WEAN
65 BURLINGTON -	KEOKUK INTERSTA	TE (IA ·	IL)						
PEORIA COUNTY									
Peoria	Hurlburt & MacArthur	8678	0	0	0.155	0.095	0.038	0.033	0.004
	272 Derby	8583	0	1	0 292	0 257	0 152	0.051	0.005
		0000	Ū		0.202	0.207	0.102	0.001	0.000
67 METROPOLITA	N CHICAGO INTERS	TATE (I	L - I	N)					
Bedford Park	7800 W 65th St	8674	0	0	0.065	0.053	0 034	0.025	0.006
Blue Island	12700 Sacramento	8671	0	0	0.045	0.035	0.023	0.023	0.005
Chicago - CTA	320 S. Franklin	8694	0	0	0.051	0.048	0.019	0.018	0.003
Chicago - SE Police	103rd & Luella	8648	0	0	0.068	0.052	0.020	0.017	0.003
Cicero	1830 S. 51st Ave.	8667	0	0	0.051	0.049	0.019	0.018	0.005
Lemont	729 Houston	8689	0	0	0.077	0.061	0.020	0.019	0.004
WILL COUNTY									
Joliet	Rte 6 & Young Rd.	8654	0	0	0.040	0.039	0.014	0.014	0.004
70 ΜΕΤΦΟΡΟΙ ΙΤΑ	N ST I OLIIS INTEDS	тате (1	τъ	1 (1)					
	IN ST. LOUIS INTERS	IAIL (I	L - N	10)					
MADISON COUNTY									
South Roxana	Michigan Ave.	8699	0	0	0.114	0.105	0.032	0.027	0.004
Wood River	54 N. Walcott	8700	0	0	0.100	0.075	0.031	0.027	0.004
Wood River	1710 Vaughn Rd.	8653	0	0	0.140	0.136	0.065	0.064	0.006
RANDOLPH COUNTY									
Houston	Twp Rd 150 & Twp Rd 45	8669	0	0	0.027	0.023	0.013	0.010	0.002
SI. CLAIR COUNTY	12th 8 Tudor	0640	0	0	0.160	0 161	0.040	0.049	0.005
East St. Louis		0040	0	0	0.109	0.101	0.049	0.040	0.005
71 NORTH CENTR	AL ILLINOIS INTRAS	STATE							
LASALLE COUNTY									
Oglesby	508 Portland	5052	0	0	0.213	0.186	0.086	0.071	+
74 COLITIE A ST IL	Ι ΙΝΙΛΙς ΙΝΙΤΡΑ ΟΤΑ ΤΙ	7							
/4 500 I HEASI IL	LINUIS IN IKASIAII	<u>با</u>							
WABASH COUNTY									
Mount Carmel	Division St	7834	0	0	0.132	0.126	0.055	0.049	0.004
Rural Wabash County	South of SR-1	6804	0	0	0.129	0.121	0.035	0.031	0.003
		-			-				

Primary 24-Hour Standard 0.14 ppm; Primary Annual Standard 0.03 ppm

2003 SHORT-TERM TRENDS SULFUR DIOXIDE

							ΔΝΙΝΙ				
STATION	ADDF	RESS	1998	3	1999	:	2000	2001	2002	2003	
65 BURLINGTON - K	KEOKUK	INTERS	STATE	(IA -	IL)						
PEORIA COUNTY											
Peoria	Hurlburt &	MacArthur	0.00	7	0.007		0.006	0.005	0.005	0.004	
TAZEWELL COUNTY											
Pekin	272 Derby		0.00	6	0.005		0.005	0.006	0.005	0.005	
67 METROPOLITAN	CHICA	GO INTE	ERSTAT	E (I	L - IN	N)					
COOK COUNTY											
Bedford Park	7800 W. 65	5th St.	0.00	7	0.008		0.006	0.005	0.006	0.006	
Blue Island	12700 Sac	ramento	0.00	8	0.009	(0.011	0.004	0.004	0.005	
Chicago -CTA	320 S. Frar	nklin	0.00	5	0.004		0.005	0.005	0.004	0.003	
Chicago - SE Police	103rd & Lu	ella	0.00	2	0.003		0.004	0.003	0.002	0.003	
Cicero	1830 S. 51	st Ave.	0.00	5	0.006		0.0050043	350.00539	0.004	0.005	
Lemont	0	0.006	0.006	0.005	o O	0.005	006	0		6	

Table B10 2002 SHORT-TERM TRENDS SULFUR DIOXIDE											
				AN	NUAL MEAN	IS (ppm)					

	Table B11 2003 NITROGEN DIOXIDE (parts per million)											
STATION	ADDRESS	NUMBER OF SAMPLES	1-H 1ST	HIGHEST : OUR 2ND	SAMPLES 24-H 1ST	OUR 2ND	ANNUAL ARITHMETIC MEAN					
67 METROPOLITA	AN CHICAGO INTE	ERSTATE (IL	- IN)									
COOK COUNTY Chicago - CTA Chicago - Com Ed Chicago - Jardine ¹	320 S. Franklin 7801 Lawndale 1000 E. Ohio	8489 8578 3628	0.100 0.097 0.082	0.095 0.087 0.079	0.061 0.056	0.057 0.047	0.031 0.022					

2003 SHORT-TERM TRENDS NITROGEN DIOXIDE

						-)	
STATION		1009	1000		2001	2002	2002
STATION	ADDRE33	1990	1999	2000	2001	2002	2003
67 ΜΕΤΡΟΡΟΙ ΙΤΑΝ		стате		\ \			
		STATE	(11 114)	,			
Chicago - CTA	320 S. Franklin	0.032	0 032	0.032	0.032	0 032	0.031
Chicago - Com Ed	7801 Lawndale	-	-	-	-	0.002	0.022
Cicero	1820 S 51st St	0.026	0.027	0.027	0.028	0.022	0.022
Northbrook	750 Dundee Rd	0.020	0.027	0.027	0.020	0.023	0.027
Schiller Park	4743 N Mannheim	0.017	0.017	0.010	0.010	0.017	0.030
		0.001	0.001	0.023	0.020	0.050	0.000
Braidwood	36400 S. Essey Rd	0 009	0.010	0 009	_	_	_
Dialdwood	30400 O. E330X Nd.	0.000	0.010	0.000	•	•	,
70 METROPOLITA	N ST. LOUIS INTER	STATE	(IL - M	0)			
			(111)	•)			
ST. CLAIR COUNTY							
East St. Louis	13th & Tudor	0.018	0.019	0.018	0.019	0.017	0.016
- Station not in operation durir	ng year shown						
+ Did not meet minimum statis	tical selection criteria (See Se	ction B.1)					
	```	,					

Primary Annual Standard 0.053 ppm

		Table B13					
	(m	2003 LEAD icrograms per cubi	ic meter)	)			
	4000500	NUMBER OF QUARTERS	Q	UARTERL	Y AVERAG	GES	ANNUAL
STATION	ADDRESS	>1.5	1st	2nd	3rd	4th	MEAN
65 BURLINGTON	N - KEOKUK INTERS	STATE (IA - IL)					
PEORIA COUNTY Peoria	613 N.E. Jefferson	0	0.01	0.02	0.01	0.01	0.01
67 METROPOLIT	TAN CHICAGO INTE	RSTATE (IL - IN	)				
COOK COUNTY							
Alsip Chicago - Cermak	4500 W. 123rd St.	0	0.01	0.02	0.02	0.01	0.01

Table B14         2003         FILTER ANALYSIS DATA         (micrograms per cubic meter)											
ARSENIC BERVLLIIM											
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)											
PEORIA COUNTY	,										
Peoria	613 N.E. Jefferson	61	0.005	0.003	0.001	61	0.000	0.000	0.000		
67 METROPOL	ITAN CHICAGO I	INTERST	CATE (	(IL - IN)							
Alsin	500 W 123rd St	56	0 045	0 027	0.005	NA					
Chicago - Cermak	735 W Harrison	58	0.026	0.027	0.004	NA					
Chicago - Mayfair	4850 Wilson Ave	55	0.031	0.016	0.004	NA					
Chicago - Washington	3535 F. 114th St.	58	0.024	0.019	0.004	NA					
Maywood	1500 Maybrook Dr.	58	0.031	0.020	0.004	NA					
Northbrook	750 Dundee Rd.	61	0.003	0.003	0.001	61	0.000	0.000	0.000		
Schiller Park	4743 N. Mannheim Rd.	61	0.004	0.004	0.001	61	0.000	0.000	0.000		
Summit	60th St. & 74th Ave.	59	0.088	0.035	0.006	NA	0.000	0.000	0.000		
70 METROPOL	ITAN ST. LOUIS I	INTERST	TATE (	(IL - M(	<b>)</b> )						
MADISON COUN	ТҮ										
Granite City	15th & Madison	58	0.021	0.016	0.003	58	0.000	0.000	0.000		
Wood River	54 N. Walcott	60	0.007	0.005	0.001	60	0.000	0.000	0.000		
	<b>-</b>										
ST. CLAIR COUN	13th St & Tudor Ave	60	0.042	0.017	0.004	60	0.000	0.000	0.000		
East St. Louis	TSUTSI. & TUUUTAVE.	00	0.042	0.017	0.004	00	0.000	0.000	0.000		
75 WEST CENT	'RAL ILLINOIS IN	NTRAST	ATE								
MACOUPIN COU	NTY										
Nilwood	Heaton & DuBois	58	0.005	0.005	0.001	58	0.000	0.000	0.000		

Table B14       2003       FILTER ANALYSIS DATA       (micrograms per cubic meter)											
<b>CADMIUM CHROMIUM</b>											
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)											
PEORIA COUNTY											
Peoria	613 N.E. Jefferson	61	0.000	0.000	0.000	61	0.006	0.006	0.000		
67 METDODOL	ΙΤΑΝ ΟΠΙΟΛΟΟΙ	NTEDST									
07 WIE I KOPUL	IIAN CHICAGUI	INICKSI	AIL	(11 118)	)						
COOK COUNTY						=0					
Alsip Chicago Cormoly	4500 W. 123rd. St.	56	0.015	0.003	0.001	56	0.014	0.013	0.006		
Chicago - Ceimak Chicago - Mayfair	135 W. Hamson 1850 Wilson Ave	00 55	0.016	0.014	0.002	00 55	0.019	0.016	0.006		
Chicago - Washington	3535 E 114th St	58	0.015	0.003	0.002	58	0.020	0.017	0.003		
Maywood	1500 Maybrook Dr.	58	0.013	0.010	0.002	58	0.030	0.025	0.012		
Northbrook	750 Dundee Rd	61	0.006	0.000	0.000	61	0.003	0.003	0.000		
Schiller Park	4743 N. Mannheim Rd.	61	0.006	0.000	0.000	61	0.010	0.007	0.004		
Summit	60th St. & 74th Ave.	59	0.010	0.009	0.002	59	0.025	0.015	0.006		
70 METROPOL	ITAN ST. LOUIS I	NTERST	ATE	(IL - M(	<b>)</b> )						
MADISON COUNT	ГҮ										
Granite City	15th & Madison	58	0.000	0.000	0.000	58	0.014	0.014	0.004		
Wood River	54 N. Walcott	60	0.013	0.000	0.000	60	0.003	0.003	0.000		
ST. CLAIR COUN	ТҮ										
East St. Louis	13th St. & Tudor Ave.	60	0.038	0.019	0.003	60	0.004	0.004	0.001		
75 WEST CENT	<b>'RAL ILLINOIS IN</b>	TRAST	ATE								
Nilwood	Heaton & DuBois	58	0.006	0.000	0.000	58	0.003	0.000	0.000		
Table B14											
---------------------------------------------	--------------------	--------	-------------	--------	-----------	--------	---------	-------	-------	--------	
2003											
FILTER ANALYSIS DATA											
(micrograms per cubic meter)											
		Т	OTAL	. H	GHEST	ARITH.	TOTAL	HK	GHEST	ARITH.	
STATION	ADDRESS	SA	MPLE	S 1st	2nd	MEAN	SAMPLES	1st	2nd	MEAN	
(5 DUDI INCTON, REORIER INTERSTATE (IA, II)											
65 BURLINGIC	DN - KEOKUK I	NIEK	<b>51</b> A	IE (IA	- IL)						
PEORIA COUNTY											
Peoria	613 N.E. Jefferson		61	1.55	1.44	0.50	61	0.078	0.057	0.020	
67 METROPOL	ITAN CHICAGO	) INTI	ERS	ГАТЕ (	(IL - IN)	)					
COOK COUNTY											
Alsip	4500 W. 123rd. St.		56	1.91	1.79	0.64	56	0.156	0.087	0.028	
Chicago - Cermak	735 W. Harrison		58	2.93	2.66	1.44	58	0.185	0.117	0.048	
Chicago - Mayfair	4850 Wilson Ave		55	4.21	2.37	1.17	55	0.099	0.097	0.039	
Chicago - Washington	3535 E. 114th St.		58	3.23	2.36	1.03	58	0.765	0.430	0.130	
Maywood	1500 Maybrook Dr.		58	32.37	17.50	4.03	58	0.181	0.168	0.075	
Northbrook	750 Dundee Rd.	32.37	2	2.37							

	Table B14								
2003 FILTER ANALYSIS DATA (micrograms per cubic meter)									
		TOTAL	H	GHEST	ARITH.	TOTAL	H	GHEST	ARITH.
STATION	ADDRESS	SAMPLES	1st	2nd	MEAN	SAMPLES	1st	2nd	MEAN
65 BURLINGT	<u>NITRATES</u> <u>SULFATES</u> 65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)								
PEORIA COUNT	Y								
Peoria	613 N.E. Jefferson	61	15.2	15.1	5.0	61	24.2	21.6	8.2
67 METROPOI	67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)								
COOK COUNTY									
Alsip	4500 W. 123rd. St.	56	21.0	18.8	5.5	56	22.3	19.7	7.8
Chicago - Cermak	735 W. Harrison	58	19.5	16.3	5.6				

### 2003 (JUNE - AUGUST)

### VOLATILE ORGANIC COMPOUNDS (parts per billion carbon)

			HIGHEST SA	MPLES (ppb	c)			
			24-HOUR					
STATION	ADDRESS	1ST	2ND	3RD	4TH			

### 2003 (JUNE - AUGUST)

VOLATI TD (trORGANIC COMPOUNDS

### 2003 (JUNE - AUGUST)

## VOLATILE ORGANIC COMPOUNDS (parts per billion carbon)

		Н	IIGHEST SA 24-H	JUN - AUG			
STATION	ADDRESS	1ST	2ND	3RD	4TH	AVERAGE	
COMPOUNDS							
Cyclopentane		0.2	0.2	0.2	0.2	0.0	
Isoprene		5.3	5.1	5.0	4.6	1.9	
2,2 - Dimethylbutane		0.3	0.3	0.2	0.2		

		Table	B16					
2003 TOXIC COMPOUNDS ¹ (parts per billion volume)								
STATION	ADDRESS	1ST	2ND	3RD	4TH	AVERAGE		
COOK COUNTY Northbrook	750 Dundee Rd.							
1,3 Butadiene		0.2	0.2	0.2	0.2	0.1		
Methylene Chloride		1.4	0.9	0.7	0.7	0.2		
Chlorform		5.1	0.5	0.4	0.3	0.2		
Carbon Tetrachloride		0.2	0.2	0.2	0.2	0.1		
Tetrachloroethylene		0.8	0.3	0.2	0.1	0.1		
Trichlorethylene		16.7	0.4	0.2	0.2	0.4		
Benzene 0.9 0.8 0.6 0.5 0.3								
Toluene		14.5	3.9	3.8				

			e BI7						
		20	)03						
PM _{2.5} SPECIATION (micrograms per cubic meter)									
HIGHEST SAMPLES (ug/m3)									
STATION	ADDRESS	1ST	24-1 2ND	HOUR 3RD	4TH	AVERAGE			
67 METROPOLITA	AN CHICAGO IN	FERSTATE	(IL - IN	)					
COOK COUNTY									
Chicago - Com Ed	7801 Lawndale								
MAJOR CONSTITUENTS									
Inorganic Elements		3.0	2.4	2.3	2.1	0.6			
Ammonium		9.2	8.5	7.6	7.0	1.8			
Nitrate		17.8	14.5	12.6	12.1	2.7			
Sulfate		10.4	10.3	10.1	9.9	3.2			
Elemental Carbon		2.0	1.7	1.4	1.4	0.7			
Organic Carbon		7.3	5.7	5.5	5.3	3.2			
Chicago - Springfield	1745 N. Springfield Ave	e.							
MAJOR CONSTITUENTS									
Inorganic Elements		2.1	1.6	1.5	1.4	0.6			
Ammonium		7.5	7.1	6.4	4.7	2.0			
Nitrate		14.3	14.2	13.2	10.5	3.2			
Sulfate		13.5	10.4	9.9	9.2	3.6			
Elemental Carbon		1.8	1.6	1.5	1.4	0.7			
Organic Carbon		9.1	7.3	7.3	7.1	4.4			
70 METROPOLITA	N ST. LOUIS INT	ERSTATE	(IL - MC	))					
MADISON COUNTY									
Alton	1700 Annex St.								
MAJOR CONSTITUENTS									
Inorganic Elements		1.9	1.8	1.5	1.2	0.5			
Ammonium		6.0	5.6	4.8	3.8	1.8			
Nitrate		9.4	9.4	6.0	5.6	2.0			
Sulfate		16.6	15.6	14.0	10.8	4.0			
Elemental Carbon		1.1	1.1	0.9	0.9				

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## APPENDIX C POINT SOURCE EMISSION INVENTORY SUMMARY TABLES

Table C1									
		2002							
	2005								
Carbon Monoxide Point Source Emission Distribution (Tons/Year)									
Category	1999	2000	2001	2002	2003				
External Fuel Combustion									
Electric Generation	12,184.8	12,119.2	13,208.0	12,939.3	14,120.6				
Industrial	16,960.3	11,175.2	9,714.8	10,833.3	11,330.7				
Commercial/Institutional	2,659.1	2,655.1	2,504.1	2,713.8	2,667.7				
Space Heating	133.1	118.3	88.9	64.7	54.5				
Internal Fuel Combustion									
Electric Generation	2,523.1	3,728.5	3,811.0	2,302.7	5,622.9				
Industrial	4,156.9	4,165.9	6,564.4	4,653.2	5,642.9				
Commercial/Institutional	179.1	601.1	735.3	629.4	451.5				
Engine Testing	421.5	411.8	366.8	886.4	811.7				
Off Highway 2-stroke Gasoline Engines	20.0	20.0	0.0	0.0	0.0				
Fugitive Emissions	1.0	1.5	0.0	0.5	0.5				
Industrial Processes									
Chemical Manufacturing	15,661.8	15,642.5	13,780.8	12,618.8	4,172.7				
Food/Agriculture	250.1	1,114.8	1,000.3	1,063.5	1,093.9				
Primary Metal Production	51,038.6	51,029.4	24,201.9	23,021.0	13,969.3				
Secondary Metal Production	2,755.8	2,912.6	2,866.4	3,198.0	3,154.6				
Mineral Products	2,697.1	3,487.5	4,087.2	9,158.7	9,835.7				
Petroleum Industry	1,620.5	6,052.8	5,992.5	5,363.6	5,319.6				
Paper and Wood Products	1.1	1.1	10.9	26.6	26.6				
Rubber and Plastic Products	37.4	34.1	35.9	127.2	18.7				
Fabricated Metal Products	1,192.7	1,236.4	1,266.7	1,307.3	1,380.6				
Oil and Gas Production	214.9	195.9	98.4	92.2	332.3				
Building Construction	0.0	0.0	0.0	0.0	0.0				
Miscelaneous Machinery	6.1	5.0	3.9	3.7	3.7				
ctrical Equipment	0.6	1.9	2.2	2.7	2.3				
Transportation Equipment									

	T	able C1						
2003 Carbon Monoxide Point Source Emission Distribution (Tons/Year)								
Category	1999	2000	2001	2002	2003			
MACT Processes								
Food and Agriculture Processes	0.0	0.0	0.0	0.0	0.0			
Agricultural Chemical Production	0.0	0.0	0.0	0.0	0.0			
Styrene or Methacrylate Based Resins0.0	0.0							

Table C2									
2003									
Nitrogen (	Nitrogen Oxides Point Source Emission Distribution (Tons/Year)								
Category	1999	2000	2001	2002	2003				
External Fuel Combustion									

2003 Nitrogen Oxides Point Source Emission Distribution (Tons/Year)

Table C3								
2003								
Particulate Matter Point Source Emission Distribution (Tons/Year)								
Category	1999	2000	2001	2002	2003			
External Fuel Combustion								
Electric Generation	17,048.2	17,042.7	17,275.6	16,273.9	15,336.4			
Industrial	5,272.8	3,788.7	3,116.0	2,980.2	2,938.6			
Commercial/Institutional Space Heating	884.2	861.6	714.9	773.7	746.6			

	2003								
Particulate Matt	er Point Sourc	e Emission Dis	stribution (Ton	s/Year)					
Category	1999	2000	2001	2002	2003				
Solid Waste Disposal									
Government	275.2	280.4	432.9	331.0	1,364.0				
Commercial/Institutional	362.1	378.9	208.6	38.0	106.7				
Industrial	642.7	675.3	217.2	386.9	331.6				
Site Remediation	2.7	19.3	45.9	26.6	84.6				
MACT Processes									
Food and Agriculture Processes	0.0	0.0	0.0	0.0	0.0				
Agricultural Chemical Production	0.0	0.0	0.0	0.0	0.0				
Styrene or Methacrylate Based Resins	5.0	5.0	5.4	5.5	5.5				
Cellulose Based Resins	0.2	0.2	0.2	0.2	0.2				
Miscellaneous Resin Production	0.0	0.0	0.0	3.4	3.9				
Alkyd Resin Production	0.0	1.8	2.1	0.0	0.0				
Vinyl Based Resins	276.3	276.3	285.3	240.0	243.1				
Miscellaneous Polymers	0.9	1.2	1.2	3.2	3.4				
Fibers Production	0.0	0.0	0.0	0.2	0.0				
Consumer Product Mfg Facilities	0.7	0.0	0.0	0.3	0.3				
Miscellaneous Processes	0.0	0.0	0.0	0.9	0.0				
Paint Stripper Use	0.9	0.9	0.9	0.0	0.9				
Phthalate Plasticizers Production	0.0	0.0	0.0	0.0	0.0				
Totals	90,316.4	93,709.9	87,652.5	79,140.9	78,078.4				

2003								
Sulfur Dioxic	le Point Source	e Emission Dist	ribution (Tons/	Year)				
Category	1999	2000	2001	2002	2003			
Solid Waste Disposal								
Government	216.9	218.5	301.0	331.0	640.8			
Commercial/Institutional	36.2	36.1	37.6	38.0	45.4			
Industrial	562.1	569.0	395.3	386.9	528.6			
Site Remediation	3.2	3.2	22.4	26.6	27.1			
MACT Processes								
Food and Agriculture Processes	0.0	0.0	0.0	472.6	472.6			
Agricultural Chemical Production	0.0	0.0	0.0	0.0	0.0			
Styrene or Methacrylate Based Resins	0.0	0.0	0.0	0.0	0.0			
Cellulose Based Resins	0.0	0.0	0.0	0.0	0.0			
Miscellaneous Resin Production	0.0	0.0	0.0	0.0	0.0			
Alkyd Resin Production	0.0	0.0	0.0	0.0	0.0			
Vinyl Based Resins	0.1	0.0	0.0	0.0	0.0			
Miscellaneous Polymers	0.0	0.0	0.0	0.0	0.0			
Fibers Production	0.0	0.0	0.0	0.0	0.0			
Consumer Product Mfg Facilities	0.0	0.0	0.0	0.0	0.0			
Miscellaneous Processes	0.0	0.0	0.0	0.0	0.0			
Paint Stripper Use	0.0	0.0	0.0	0.0	0.0			
Phthalate Plasticizers Production	0.0	0.0	0.0	0.0	0.0			
Totals	1,085,828.3	1,070,058.3	653,797.5	531,342.7	512,320.6			

2003						
Volatile Organic Material Point Source Emission Distribution (Tons/Year)						
Category	1999	2000	2001	2002	2003	
External Fuel Combustion						
Electric Generation	1,247.4	1,235.9	1,337.5	1,342.2	1,461.3	
Industrial	3,008.4	1,232.2	1,130.6	854.1	814.4	
Commercial/Institutional	258.4	250.0	258.2	380.8	344.9	
Space Heating	25.7	26.0	18.2	13.4	14.8	
Internal Fuel Combustion						
Electric Generation	349.8	443.3	709.2	292.9	639.8	
Industrial	2,000.7	1,979.2	1,932.4	1,022.2	1,066.1	

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		Table C	6				
2003 Estimated County Stationary Point Source Emissions (Tons/Year)							
County	Carbon Monoxide	Nitrogen Oxides	Particulate Matter	Sulfur Dioxide	Volatile Organic Material		

	Hen763. <b>3.4</b> .7 <b>5.413</b> 2		-0.1875 Tw() 7	Гw()Тj ЕТ 71.2	5 559.5 0.7 0.
	Estimated County S		ource Emissions	(Tons/Year)	
County	Henders5Carboh9123 Monoxide		71. <b>Pa</b> rticulate Matter	Sulfur Dioxide	Volatile Organic
					Material
Hardin	245.3	25.4	138.4	58.0	37.7
Henderson	0.4	0.0	152.6	0.0	3.4
Henry	1,392.0	3,597.8	315.9	26.5	382.7
Iroquois Iroq	quoisHenry				

	Table C7						
	Annual Estimated Emissions Trends (Tons)						
Year	Carbon Monoxide	Nitrogen Oxides	Particulate Matter	Sulfur Dioxide	Volatile Organic Material		
1981	240,421	826,427	276,529	1,577,992	270,814		
1982	163,704	693,054	184,716	1,404,040	233,951		
1983	144,622	759,453	185,931	1,363,292	207,405		
1984	110,922	746,367	204,490	1,435,066	197,418		
1985	107,876	715,556	174,102	1,406,300	191,070		
1986	109,777	676,181	164,246	1,400,761	180,148		
1987	98,213	644,511	166,292	1,379,407	176,406		
1988	127,758	653,521	162,124	1,393,628	165,792		
1989	132,214	610,214	212,778	1,254,474	193,499		
1990	134,744	623,466	266,888	1,272,445	170,378		
1991	148,667	619,161	220,903	1,239,690	154,008		
1992	129,054	610,214	163,529	1,228,949	156,867		
1993	130,097	556,460	142,123	1,170,549	152,288		
1994	127,848	555,893	133,275	1,158,555	140,492		
1995	127,661	505,966	119,726	1,273,786	141,381		
1996	130,040	495,267	105,842	1,183,278	139,445		
1997	117,046	510,729	100,038	1,197,404	136,541		
1998	108,117	509,676	99,619	1,196,461	134,924		
1999	120,906	421,993	90,316	1,085,828	99,121		
2000	122,702	424,609	93,710	1,070,058	101,147		
2001	96,970	358,263	87,652	653,797	95,221		
2002	99,173	301,216	79,141	531,343	90,014		
2003	88,367	289,921	78,078	512,321	89,579		

	Table C8 Annual Source Reported Emissions Trends (Tons)					
Year	Carbon Monoxide	Nitrogen Oxides	Particulate Matter	Sulfur Dioxide	Volatile Organic Material	
1992	112,394	38,1940	95,653	1,045,102	143,852	
1993	113,777	41,8211	90,153	1,001,125	108,847	
1994	116,183	40,4488	88,829	967,215	108,897	
1995	160,247	36,6980	67,039	814,230	103,143	
1996	84,282	40,7680	63,693	914,297	87,263	
1997	71,360	40,4251	57,451	974,234	76,232	
1998	79,313	37,7201	61,395	964,264	77,836	
1999	80,126	36,0651	56,117	863,660	71,317	
2000	80,044	32,8925	55,681	620,456	70,862	
2001	76,023	29,1165	53,178	528,219	62,398	
2002	82,230	26,2057	49,504	499,284	70,441	

- Coordination with local planning agencies to ensure compatibility of air quality programs between state and local jurisdictions.
- Coordination of the Bureau's Stationary Source Inventory.

#### **Compliance and Enforcement**

The Compliance and Enforcement Section provides Management oversight for all aspects

## Table D1

# **BUREAU OF AIR**