



Illinois Annual Air Quality Report 2006



Cover: The photographs used on the cover of the 2006 Air Quality Report show just a few of the air quality monitors used in Illinois. The Illinois EPA maintains a network of 80 monitoring sites with more than 200 instruments throughout the State. The extensive network monitors pollutants including ozone, particulate matter, sulfur dioxide, nitrogen dioxide, carbon monoxide and lead. In addition, the Illinois EPA monitors for some heavy metals, nitrates, sulfates, as well as volatile organic and toxic compounds.

**ILLINOIS ANNUAL
AIR QUALITY REPORT
2006**

**Illinois Environmental Protection Agency
Bureau of Air
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Springfield, IL 62794-9276**

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This document is produced by the Illinois Environmental Protection Agency; Douglas P. Scott, Director.

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

A MESSAGE FROM THE DIRECTOR

Illinois has made great strides in improving air quality since the creation of the Illinois EPA. Prior to 1970, all air quality monitoring was done by local agencies or the Illinois Department of Public Health. By the mid-1970s, many different agencies took part in the overall monitoring of air quality in the state. However, the networks were not always connected to provide a full overview of air quality.

Throughout that decade, air quality monitoring continued to evolve and the Illinois EPA (Agency) began operating most monitoring sites as many local agencies discontinued the work. By the late 1970s, the Agency monitored for total suspended particulates, sulfur dioxide, nitrogen dioxide and doubled the number of monitors for ground level ozone.

Thanks to improvements in technology, we can now track air quality in real time and provide the data to the public, industry and federal regulators. Data is collected for the six criteria pollutants (particulate matter, ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide and lead), along with some heavy metals (e.g. mercury, hexavalent chrome), nitrates, sulfates and volatile organic compounds. The information is provided through the Agency's website www.epa.state.il.us/air/air-quality-menu.html.

Illinois air quality showed significant improvement in 2006 as compared to 2005 due to a number of factors, including meteorology, which can result in considerable differences in air quality. Air quality in Illinois was either good or moderate 97 percent of the time throughout Illinois in 2006, compared to 90 percent in 2005. In addition, air quality trends show air pollution well below the level of the standards on a statewide basis.

The 2006 Annual Air Quality Report has been developed in order to provide a thorough, unbiased assessment of air quality in the State. The data compiled in this report was collected from the extensive air monitoring network operated throughout the State of Illinois.

As we look to the future, we predict further improvements, not only in air quality but also in technology. We commit to make progress in air quality while providing the most accurate information possible regarding the air we all breathe. Please feel free to contact the Illinois EPA with any comments and/or questions regarding this report or air pollution control programs.



Douglas P. Scott
Director

Illinois Annual Air Quality Report 2006

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2006 EXECUTIVE SUMMARY

This report presents a summary of air quality data collected throughout the State of Illinois during the calendar year - 2006. Data is presented for the six criteria pollutants (those for which air quality standards have been developed - particulate matter (PM₁₀ and PM_{2.5}), ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead) along with some heavy metals, nitrates, sulfates, 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 2006 was either good or moderate more than 97 percent of the time throughout Illinois. There were no days when air quality in some part of Illinois was considered Unhealthy (category Red). This compares with 2 Unhealthy days in 2005. There were 8 days (5 for 8-hour ozone and 3 for PM_{2.5}) when air quality in some part of Illinois was considered Unhealthy for Sensitive Groups (category Orange). This compares with 32 Unhealthy for Sensitive Groups days in 2005. Air quality trends for the criteria pollutants are continuing to show downward trends or stable trends well below the level of the standards. Percentage changes over the ten year period 1997 – 2006 are as follows: Particulate Matter (PM₁₀) 8 percent decrease, Sulfur Dioxide 36 percent decrease, Nitrogen Dioxide 6 percent decrease, Carbon Monoxide 32 percent decrease, Lead 30 percent decrease, and Ozone 10 percent decrease.

Stationary point source emission data has again been included. The data in the report reflects information contained in the Emission Inventory System (EIS) as of December 31, 2006. Emission estimates are for the calendar year 2006 and are for the pollutants: particulate matter, volatile organic material, sulfur dioxide, nitrogen oxides and carbon monoxide. Emission trends of these pollutants has been given for the years 1997 to the present. Emissions reported with the Annual Emissions Report have been provided starting with 1997 and are currently available through 2005. In general there has been a trend toward decreasing emissions over this time period.

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 peroxyacetyl nitrate, 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 (O₂) to form ozone (O₃). In general, nitric oxide will react with ozone to re-form nitrogen dioxide, completing the cycle. A build-up of ozone above the equilibrium concentration defined by the reaction cycle given above results when nitrogen oxide reacts with non-methane hydrocarbons. Oxygen atoms from the 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 concentrations of about 100 ug/m³ (0.05 ppm) for 4 hours.

Adverse effects on materials (rubber products and fabrics) from exposure to photochemical oxidants have not been precisely quantified, but have been observed at the levels presently occurring in many urban atmospheres.

Ozone accelerates the aging of many materials, resulting in rubber cracking, dye fading and paint erosion. These effects are linearly related to the total dose of ozone and can occur at very low levels, given long duration exposures.

Ozone is a pulmonary irritant that affects the respiratory mucous membranes, other lung tissues and respiratory functions. Clinical and epidemiological studies have demonstrated that ozone impairs the normal mechanical

function of the lung, causing alterations in respiration; the most characteristic of which are shallow, rapid breathing and a decrease in pulmonary compliance. Exposure to ozone results in clinical symptoms such as chest tightness, coughing, and wheezing.

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 SO₂ can produce larger changes in pulmonary function than exposure to either pollutant alone.

Peroxyacetylnitrate (PAN) is an eye irritant, and its effects often occur in conjunction with the effects of ozone.

Two characteristics of ozone and oxidant exposures should be cited:

- Ozone itself is a primary cause of most of the health effects reported in toxicological and experimental human studies and the evidence for attributing many health effects to this substance alone is very compelling.
- The complex of atmospheric photochemical substances is known to produce health effects, some of which are not attributable to pure ozone but may be caused by other photochemical substances in combination with ozone.

Particulate Matter (PM)

Not all air pollutants are in the gaseous form. Small solid particles and liquid droplets, collectively called particulates or aerosols, are also present in the air in great numbers and may constitute a pollution problem. Particulates entering the atmosphere differ in size and chemical composition. The effects of particulates on health and welfare are

directly related to their size and chemical composition.

Particulate matter in the atmosphere consists of solids, liquids, and liquids-solids in combination. Suspended particulates generally refer to particles less than 100 micrometers in diameter (human hair is typically 100 micrometers thick). Particles larger than 100 micrometers will settle out of the air under the influence of gravity in a short period of time.

Typical sources emitting particles into the atmosphere are combustion of fossil fuels (ash and soot), industrial processes (metals, fibers, etc.), fugitive dust (wind and mechanical erosion of local soil) and photochemically produced particles (complex chain reactions between sunlight and gaseous pollutants). Combustion and photochemical products tend to be smaller in size (less than 1 micrometer); fugitive dust and industrial products are typically larger in size (greater than 1 micrometer).

Particles which cause the most health and visibility difficulties are those less than 1.0 micrometer in size. These particles are also the most difficult to reduce in numbers by the various industrial removal techniques. Rainfall accounts for the major removal of these smaller particles from the air.

One of the major problems associated with high concentrations of particulates is that the interaction between the particles, sunlight and atmospheric moisture can potentially result in the climatic effects and diminished visibility (haze). Particles play a key role in the formation of clouds, and emissions of large numbers of particles can, in some instances, result in local increases in cloud formation and, possibly, precipitation. Particles in the size range of 0.1 to 1.0 micrometers are the most efficient in scattering visible light (wave length 0.4 to 0.7 micrometers) thereby reducing visibility. Particles combined with high humidity can result in the formation of haze which can cause hazardous conditions for the operation of motor vehicles and aircraft.

Particulate pollutants enter the human body by way of the respiratory system and their most immediate effects are upon this system. The size of the particle determines its depth of penetration into the respiratory system. Particles over 5 micrometers are generally deposited in the nose and throat. Those that do penetrate deeper in the respiratory system to the air ducts (bronchi) are often removed by ciliary action. Particles ranging in size from 0.5 - 5.0 micrometers in diameter can be deposited in the bronchi, with few reaching the air sacs (alveoli). Most particles deposited in the bronchi are removed by the cilia within hours. Particles less than 0.5 micrometer in diameter reach and may settle in the alveoli. The removal of particles from the alveoli is much less rapid and complete than from the larger passages. Some of the particles retained in the alveoli are absorbed into the blood.

Besides particulate size, the oxidation state, chemical composition, concentration and length of time in the respiratory system contribute to the health effects of particulates. Particulates have been associated with increased respiratory diseases (asthma, bronchitis, emphysema), cardiopulmonary disease (heart attack) and cancer.

Plant surfaces and growth rates may be adversely affected by particulate matter. Particulate air pollution also causes a wide range of damage to materials including corrosion of metals and electrical equipment and the soiling of textiles and buildings.

Sulfur Dioxide (SO₂)

Sulfur dioxide is an atmospheric pollutant which results from combustion processes (mainly burning of fossil fuels containing sulfur compounds), refining of petroleum, manufacture of sulfuric acid and smelting of ores containing sulfur. Reduction of sulfur dioxide pollution levels can generally be achieved through the use of low sulfur content fuels or the use of chemical sulfur removal systems.

Once in the atmosphere some sulfur dioxide can be oxidized (either photochemically or in

the presence of a catalyst) to SO₃ (sulfur trioxide). In the presence of water vapor, SO₃ is readily converted to sulfuric acid mist. Other basic oxides combine with SO₃ to form sulfate aerosols. Sulfuric acid droplets and other sulfates are thought to account for about 5 to 20 percent of the total suspended particulate matter in urban air. These compounds can be transported large distances and come back to earth as a major constituent of acid precipitation. Many of the resultant health problems attributed to SO₂ may be a result of the oxidation of SO₂ to other compounds.

The effects of SO₂ on health are irritation and inflammation of tissue that it directly contacts. Inhalation of SO₂ causes bronchial constriction resulting in an increased resistance to air flow, reduction of air volume and an increase of respiratory rate and heart rate.

SO₂ can exacerbate pre-existing respiratory diseases (asthma, bronchitis, emphysema). The enhancement (synergism) by particulate matter of the toxic response to sulfur dioxide has been observed under conditions which would promote the conversion of sulfur dioxide to sulfuric acid. The degree of enhancement is related to the concentration of particulate matter. A twofold to threefold increase of the irritant response to sulfur dioxide is observed in the presence of particulate matter capable of oxidizing sulfur dioxide to sulfuric acid.

Sulfuric acid (H₂SO₄) inhalation causes an increase in the respiratory system's mucous secretions, which reduces the system's ability to remove particulates via mucociliary clearance. This can result in an increase incidence of respiratory infection.

Carbon Monoxide (CO)

The major source of carbon monoxide (CO) is motor vehicles. The USEPA has kept under its jurisdiction the regulation of emission control equipment on new motor vehicles while the State's responsibility for reducing excessive ambient carbon monoxide levels is

exercised by developing transportation plans for congested urban areas.

The toxic effects of high concentrations of CO on the body are well known. Carbon monoxide is absorbed by the lungs and reacts with hemoglobin (the oxygen carrying molecule in the blood) to form carboxyhemoglobin (COHb). This reaction reduces the oxygen carrying capacity of blood because the affinity of hemoglobin for CO is over 200 times that for oxygen. The higher the percentage of hemoglobin bound up in the form of carboxyhemoglobin, the more serious is the health effect.

The level of COHb in the blood is directly related to the CO concentration of the inhaled air. For a 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.

Evidence also exists indicating a possible relationship between CO and heart attacks, the development of cardiovascular disease and fetal development.

Studies on the existing ambient levels of CO do not indicate any adverse effects on vegetation, materials, or other aspects of human welfare.

Nitrogen Dioxide (NO₂)

Nitrogen gas (N₂) is an abundant and inert gas which makes up almost 80 percent of the earth's atmosphere. In this form, it is harmless to man and essential to plant metabolism. Due to its abundance in the air, it is a frequent reactant in many combustion processes. When combustion temperatures are extremely high, as in the burning of coal, oil, gas and in automobile engines, atmospheric nitrogen (N₂) may combine with molecular oxygen (O₂) to form various oxides of nitrogen (NO_x). Of these, nitric oxide (NO) and nitrogen dioxide (NO₂) are the most important contributors to air pollution; NO_x generally is used to represent these. Nitric oxide (NO) is a colorless and odorless gas. It is the primary form of NO_x resulting from the combustion process. NO_x contributes to haze and visibility reduction. NO_x is also known to cause deterioration and fading of certain fabrics and damage to vegetation. Depending on concentration and extent of exposure, plants may suffer leaf lesions and reduced crop yield.

Sensitivity of plants to nitrogen oxides depends on a variety of factors including species, time of day, light, stage of maturity and the presence or absence of other air pollutants such as sulfur dioxide and ozone.

There is a lack of strong evidence associating health effects with most nitrogen oxide compounds. NO₂, a secondary derivative of atmospheric nitric oxide, however, has been clearly established as exerting detrimental effects on human health and welfare.

NO₂ can cause an impairment of dark adaptation at concentrations as low as 0.07 ppm. NO₂ can cause an increase in airway resistance, an increase in respiratory rate, an increase in sensitivity to bronchoconstrictors, a decrease in lung compliance and an enhanced susceptibility to respiratory infections. NO₂ is a deep lung irritant capable of producing pulmonary edema if inhaled in sufficient concentrations. When NO₂ is inhaled in concentrations with other pollutants, the effects are additive.

NO_x may also react with water to form corrosive nitric acids, a major component of acid precipitation. Additionally, NO_x and various other pollutants (e.g., hydrocarbons) may react in the presence of sunlight to product photochemical oxidants. These are extremely unstable compounds which damage plants and irritate both the eyes and respiratory system of people. Ozone (O₃) and a group of chemicals called peroxyacetylnitrates (PAN) are the major constituents of photochemical oxidants.

Lead (Pb)

Historically atmospheric lead came primarily from combustion of leaded gasoline. However, the use of unleaded gas since 1975 has reduced mobile source lead emissions by over 90%. Currently stationary sources, such as lead smelters, battery manufacturers, iron and steel producers and others can contribute significant amounts of lead to their immediate vicinity.

Lead is a stable compound which persists and accumulates both in the environment and in the human body. Lead enters the human body through ingestion and inhalation with consequent absorption into the blood stream and distribution to all body tissues. Clinical, epidemiological and toxicological studies have demonstrated exposure to lead adversely affects human health.

Low level lead exposure has been found to interfere with specific enzyme systems and blood production. Kidney and neurological cell damage has also been associated with lead exposure. Animal studies have demonstrated that lead can contribute to reduced fertility and birth defects. Children are the population segment most sensitive to many of lead's adverse effects.

Other serious potential effects from lead exposure are behavioral. Brain damage has been well documented in cases of severe lead poisoning in children. Restlessness, headaches, tremors and general symptoms of mental retardation have been noted. The brain seems to be particularly sensitive to lead poisoning, yet it is unclear whether low level

exposure will result in brain dysfunction. Although evidence exists which indicates that children with above-normal blood lead levels are more likely to demonstrate poor academic performance, the studies remain inconclusive.

Illinois Ambient Air Quality Standards and Episode Levels

Consistent with the intent of the Environmental Protection Act of the State of Illinois, Illinois has adopted ambient air quality and episode standards that specify maximum permissible short-term and long-term concentrations of various contaminants in the atmosphere. Ambient air quality and episode standards are limits on atmospheric concentrations of air contaminants established for the purpose of protecting the public health and welfare.

The Illinois and National Ambient Air Quality Standards consist of a primary and secondary standard for each pollutant (contaminant) as presented in **Table 1**. The Illinois Air Pollution Episode Levels are presented in **Table 2**. The primary standard and episode criteria represents the level of air quality which is necessary to protect the public health. Air entering the respiratory tract must not menace health. Therefore, the air quality standards must, as a minimum, provide air which will not adversely affect, through acute or chronic symptoms, the public health. Air contaminants increase the aggravation and the production of respiratory and cardio-pulmonary diseases. The secondary standard defines the level of air quality which is necessary to protect the public welfare. This includes, among other things, effects on crops, vegetation, wildlife, visibility and climate, as well as effects on materials, economic values and on personal comfort and well-being. The standards are legally enforceable limitations, and any person causing or contributing to a violation of the standards is subject to enforcement proceedings under the Environmental Protection Act. The standards have also been designed for use as a basis for the development of implementation plans by State and local agencies for the abatement and control of pollutant emissions from existing

sources, and for the determination of air contaminant emission limitations to ensure that population, industry and economic

growth trends do not add to the region's air pollution problems.

Table 1: Summary of National and Illinois Ambient Air Quality Standards

Pollutant	Averaging Time	Standard	
		Primary	Secondary
Standard units are micrograms per cubic meter (ug/m ³) and parts per million (ppm)			
Particulate Matter 10 micrometers (PM₁₀)	24-hour	150 ug/m ³	Same as Primary
Particulate Matter 2.5 micrometers (PM_{2.5})	Annual Arithmetic Mean	15.0 ug/m ³	Same as Primary
	24-hour	35 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
Ozone	1-hour/day	0.12 ppm	Same as Primary
	8-hour/day	0.08 ppm	Same as Primary
Nitrogen Dioxide	Annual Arithmetic Mean	0.053 ppm	Same as Primary
Lead	Quarterly Arithmetic Mean	1.5 ug/m ³	Same as Primary
The PM _{2.5} standards are referenced to local conditions of temperature and pressure rather than standard conditions (760 mm and 25 deg C).			
Note: The State of Illinois has not adopted the PM _{2.5} or 8-hour ozone standards at this time.			

Table 2: Illinois Air Pollution Episode Levels

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

SECTION 2: STATEWIDE SUMMARY OF AIR QUALITY FOR 2006

OZONE

Monitoring was conducted at 36 locations during at least part of the April-October "ozone season" and at least 75 percent data capture was obtained at all 36 sites. There were no changes to the ozone monitoring network in 2006.

No sites recorded hourly concentrations above the 0.12 parts per million (ppm) 1-hour standard. The highest 1-hour concentration was 0.121 ppm at East St. Louis compared with a statewide high 1-hour value of 0.144 ppm in 2005. The highest value in the Chicago area was 0.103 ppm recorded at Chicago – Jardine compared with a high in 2005 of 0.144 ppm at Chicago - SWFP.

Data is also presented to compare with the 8-hour 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. No site in Illinois had a fourth high value above 0.08 ppm in 2006 compared with 10 sites in 2005. The highest fourth high value was 0.079 ppm at Alton. The highest level in the Chicago area was 0.078 ppm at Alsip. For the three year period 2004 – 2006, no sites 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 1997-2006. The graph shows a great deal of year-to-year fluctuation and a generally flat 10-year trend since 1997 even with high years of 1999, 2002, and 2005 and low years in 2000 and 2004. The Statewide average for 2006 was 0.089 ppm compared with 0.103 ppm in 2005 and 0.086 ppm in 2004.

Statewide, the total number of excursion days in 2006 was zero compared with four in 2005 and zero in 2004.

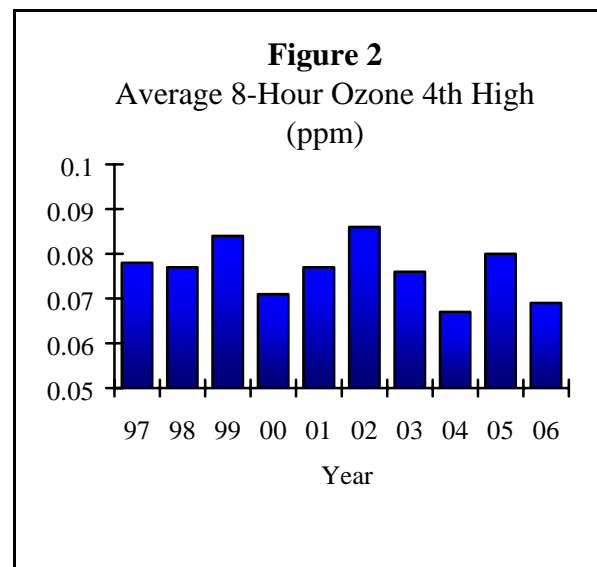
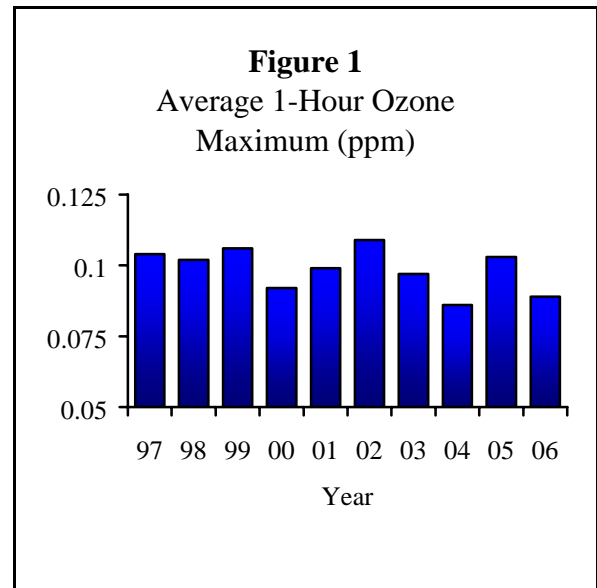


Figure 2 shows for each year the statewide average of the 4th highest 8-hour ozone value for the same period 1997-2006. This trend is generally flat since 1997 as well.

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

July and August were the most conducive months in terms of meteorological conditions Statewide. In terms of conducive days, the Chicago area and the Metro-East area both had average numbers.

PARTICULATE MATTER

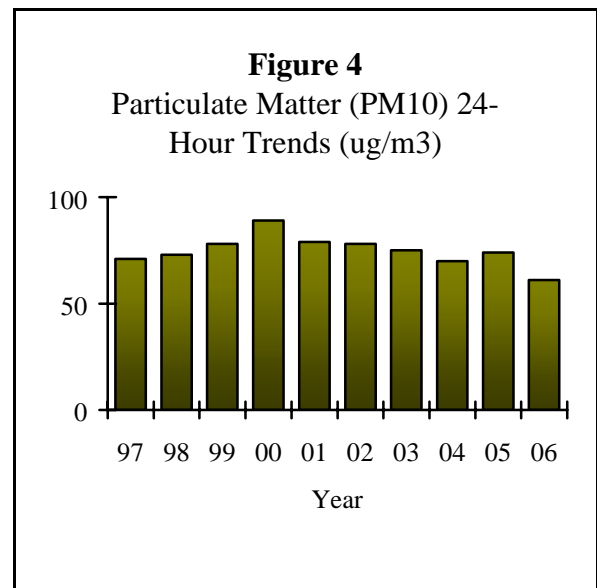
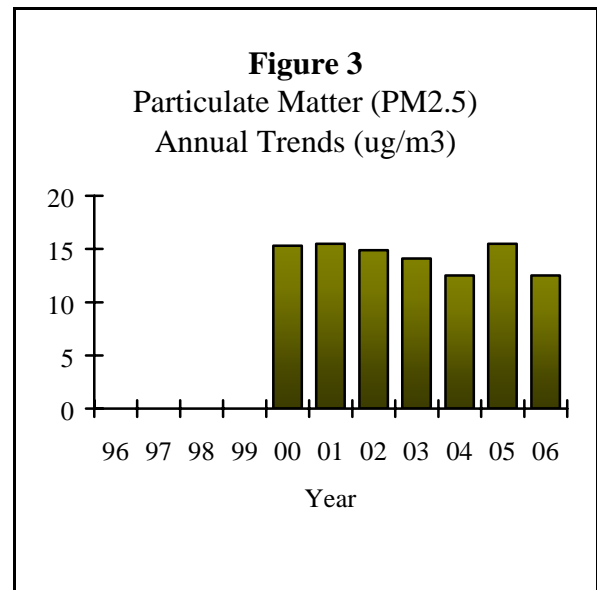
Monitoring was conducted at 38 sites for PM_{2.5}. Valid annual averages were obtained for 38 of the 38 sites. A total of 3 sites recorded averages above 15.0 ug/m³, the level of the annual standard, compared with 22 sites in 2005 and 6 sites in 2004. The Statewide average of annual averages was 12.5 ug/m³ in 2006 compared with 15.5 ug/m³ in 2005 and 12.5 ug/m³ in 2004. **Figure 3** shows the trend of the Statewide annual averages for PM_{2.5} for the period 2000-2006. There were no exceedances of the 24-hour standard of 65 ug/m³ in 2006. The Statewide peak of 42.2 ug/m³ was recorded at Chicago - Mayfair. The Statewide average of the 98th percentile of 24-hour averages was 27.4 ug/m³ in 2006 compared with 42.1 ug/m³ in 2005 and 30.9 ug/m³ in 2004.

In 2006 there were 18 sites monitoring PM₁₀. The Statewide average in 2006 was 24 ug/m³ compared with 29 ug/m³ in 2005 and 26 ug/m³ in 2004.

For PM₁₀, the Statewide average of the maximum 24-hour averages in 2006 was 61 ug/m³ compared with 74 ug/m³ in 2005 and 70 ug/m³ in 2004. **Figure 4** depicts this trend for the period 1997-2006.

No sites exceeded the primary annual standard of 50 ug/m³. The highest annual

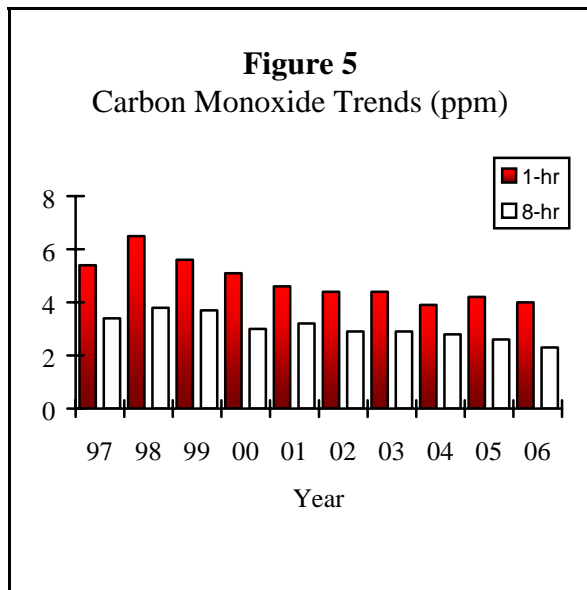
average was 38 ug/m³ in Granite City - 2040 Washington. The lowest annual was 19 ug/m³ in Carbondale. There were no exceedances of the 24-hour primary standard of 150 ug/m³. The highest 24-hour average was recorded in Lyons township with a value of 120 ug/m³ compared with a high 24-hour value of 138 ug/m³ at Granite City - 2040 Washington in 2001.



CARBON MONOXIDE

There were no exceedances of either the 1-hour primary standard of 35 ppm or the 8-hour primary standard of 9 ppm in 2006. The highest 1-hour average was 7.9 ppm recorded in Peoria. The highest 8-hour average was 3.3 ppm also recorded in Peoria.

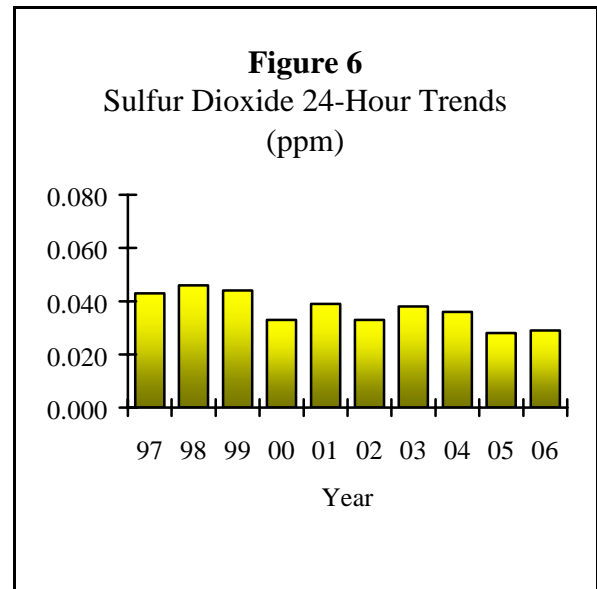
Figure 5 shows the trend for the period 1997-2006 for the statewide average of the 1-hour and 8-hour high CO values. The overall trend for both averages is downward. The statewide average of the 1-hour high was 4.0 ppm in 2006 compared with 4.2 ppm in 2005. The statewide average for the 8-hour high was 2.3 ppm in 2006 compared with 2.6 ppm in 2005.



SULFUR DIOXIDE

There were no exceedances of the the annual primary standard of 0.03 ppm, the 24-hour primary standard of 0.14 ppm or the 3-hour secondary standard of 0.5 ppm in 2005. The maximum 24-hour average was 0.093 ppm

recorded in Pekin. This compares with a high 24-hour average in 2005 of 0.067 ppm. The highest 3-hour average of 0.260 ppm was recorded in rural Wabash County. The Statewide annual average for 2006 was 0.003 ppm. The Statewide average in 2005 was 0.004 ppm.



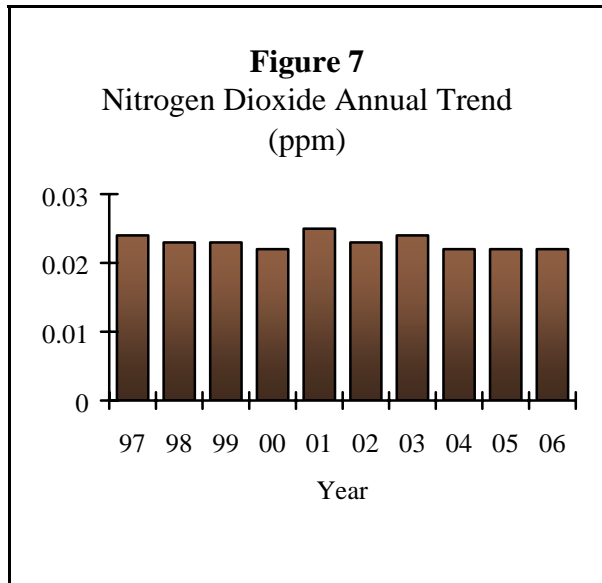
Since 1990 the Statewide trend of annual averages has been flat, ranging from 0.007 ppm to 0.003 ppm. **Figure 6** shows the statewide trend for the maximum 24-hour averages for the period 1997-2006. The 24-hour average trend has been overall downward; however a greater degree of year-to-year fluctuations have occurred. The statewide average for 2006 was 0.029 ppm compared with the 2005 average of 0.028 ppm.

NITROGEN DIOXIDE

There were no violations of the annual primary standard of 0.053 ppm recorded in Illinois during 2006. The highest annual average of 0.031 ppm was recorded at Chicago - CTA. The Statewide average for

2006 was 0.022 ppm compared with 0.022 ppm in 2005 and 0.022 ppm in 2004.

Two sites operated only during part of the ozone season as PAMS. **Figure 7** depicts the trend of statewide averages from 1997-2006. The trend has been generally stable for the period ranging from 0.022 ppm to 0.025 ppm. There have been no violations of the annual standard since 1980.



LEAD

Perhaps the greatest success story in controlling criteria pollutants is lead. As a direct result of the Federal Motor Vehicle Control Program which has required the use of unleaded gas in automobiles since 1975, lead levels have decreased by more than 90 percent statewide.

There were no violations of the Quarterly lead Standard of 1.5 ug/m³. The highest quarterly lead average in 2006 was 0.14 ug/m³ recorded at Granite City - 15th & Madison during the 4th quarter.

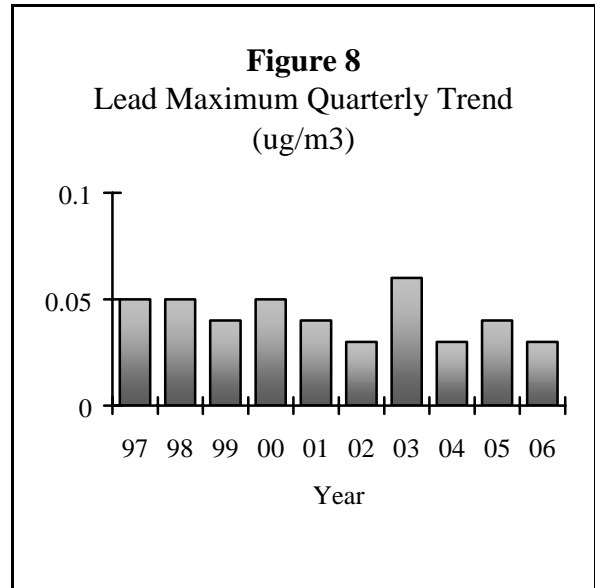


Figure 8 shows the trend of the statewide maximum quarterly average from 1997-2006. The trend shows that ambient lead levels have generally decreased during the period.

FILTER ANALYSIS RESULTS

The TSP samples analyzed, in addition to lead, for specific metals, sulfates and nitrates. Several of the metals analyzed (arsenic, beryllium, cadmium, chromium, manganese, and nickel) have known toxic properties. Other metals such as iron can be used as tracers to help identify sources of high particulate values. Sulfates and nitrates are precursors of acid precipitation/deposition and add to the understanding of this inter-regional problem. They are also important constituents of the PM_{2.5} values. There are currently no State or Federal ambient air quality standards for these parameters.

The areas with the highest metals concentrations in Illinois are generally the heavy industrialized areas of the Metro-East (Granite City and East St. Louis) and South Chicago, especially for iron and manganese. The highest 24-hour average for arsenic was 0.017 ug/m³ measured in Granite City. The

highest annual average of 0.002 ug/m³ was recorded at Granite City and East St. Louis. There were no measurable beryllium 24-hour averages recorded statewide. East St. Louis recorded the highest cadmium concentrations with a maximum 24-hour average of 0.017 ug/m³. The highest annual average of 0.002 ug/m³ was recorded at Chicago – Cermak. The highest 24-hour chromium average was 0.041 ug/m³ recorded at Maywood. Maywood also had the highest annual average at 0.016 ug/m³. 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 Maywood with a value of 0.073 ug/m³. The highest annual average was in Maywood with an average of 0.011 ug/m³. For nitrates, the highest 24-hour average was 23.1 ug/m³ recorded at East St. Louis. The highest annual average was 5.0 ug/m³ also at East St. Louis. For sulfates, the highest 24-hour average was 20.2 ug/m³ recorded at East St. Louis. The highest annual average was 9.2 ug/m³ at East St. Louis. In general, metals, nitrate and sulfate values were lower in 2006 than in 2005.

VOLATILE ORGANIC COMPOUNDS

Sampling for volatile organic compounds (VOCs) continues as part of the photochemical assessment monitoring site (PAMS) network. The network consists of three sites: Chicago - Jardine - Type 2 source area and Northbrook - Type 3 peak ozone area. The Zion - Type 4 domain edge site was temporarily discontinued in 2003.

Sampling was conducted for the period June - August. Automated Gas Chromatograph (GC) systems providing hourly data were located at both sites. In addition, continuous formaldehyde data was collected in Northbrook and manual carbonyl samples were taken every six days at Northbrook. Every six day samples were also taken at Chicago-Jardine during PAMS season. The data is presented as parts per billion carbon

(ppbc). This process reduces all of the results to a common basis in terms of single carbon atoms. The carbonyls are expressed in regular parts per billion volume.

In general VOC levels were lower in 2006 than in 2005 at both Chicago-Jardine and Northbrook. The highest compounds in terms of 24-hour and seasonal averages at Chicago - Jardine were Isopentane, Ethane, Propane, Toluene, N-Pentane, and N-Butane. The lowest compounds were Isoprene, Methylheptanes, Ethyltoluenes, Diethylbenzenes, Butenes, and Pentenes. The highest compounds for 24-hour and seasonal averages at Northbrook were Ethane, Isopentane, Toluene, Propane, Isoprene, N-Pentane and N-Butane. The lowest compounds were Butenes, Pentenes, Styrene, Diethylbenzenes, and Propylbenzenes.

TOXIC COMPOUNDS

Sampling for toxic compounds other than metals (see Filter Analysis Section) was conducted at two locations - Northbrook and Schiller Park. Most compounds were below the method detection limits. The highest compounds were acetaldehyde, mercury, toluene, and benzene. Concentrations were somewhat higher in Northbrook than Schiller Park.

PM_{2.5} SPECIATION

PM_{2.5} samples are also analyzed for numerous constituents at 6 sites. The major constituents (inorganic elements, ammonium, nitrate, sulfate, elemental and organic carbon) are listed in **Table B17**. In general, approximately 60% is ammonium nitrate and ammonium sulfate, 36% is elemental and organic carbon and 4% is inorganic elements.

SECTION 3: AIR QUALITY INDEX

The Air Quality Index (AQI) is the national standard method for reporting air pollution levels to the general public in 2006. An index such as the AQI is necessary because there are several air pollutants, each with different typical ambient concentrations and each with different levels of harm, and to report actual concentrations for all of them would be confusing. The AQI uses a single number and a short descriptor to define the air quality in an easy-to-remember and easy-to-understand way, taking all the pollutants into account.

The AQI is based on the short-term Federal National Ambient Air Quality Standards (NAAQS), the Federal episode criteria, and the Federal Significant Harm levels for six of the "criteria pollutants", namely:

- Ozone (O₃)
- Sulfur dioxide (SO₂)
- Carbon monoxide (CO)
- Particulate matter (PM₁₀)
- Particulate matter (PM_{2.5})
- Nitrogen dioxide (NO₂)

In each case (except PM_{2.5} which uses a lower value), the short-term primary NAAQS corresponds to an AQI of 100 and a descriptor of Unhealthy for Sensitive Groups, the Significant Harm level corresponds to an AQI of 500 and a descriptor of Hazardous, and the episode criteria correspond to intermediate hundreds. NO₂ does not have short-term NAAQS; AQI begins at 201 for it. For the AQI the health effects and cautionary

statements are pollutant-specific. **Table 3** lists those for 8-hour ozone as an example.

Unhealthy for Sensitive Groups occurs on occasion for 8-hour ozone and PM_{2.5}. Unhealthy air quality is uncommon in Illinois, and Very Unhealthful air quality is rare. There has never been an occurrence of Hazardous air quality in Illinois.

The AQI is computed as follows: data from pollution monitors in an area are collected, and the AQI subindex for each pollutant is computed using formulas derived from the index/concentration relations noted above. Nomograms and tables are also available for this purpose. The data used are:

- O₃ estimate of the highest 8-hour average for that calendar day
- SO₂ the most recent 24-hour average
- CO the highest 8-hour average so far that calendar day
- PM₁₀ the most recent 24-hour average
- PM_{2.5} estimate of the 24-hour average for that calendar day
- NO₂ the highest 1-hour average (if above 600 ppb)

Continuous monitors are utilized for all the pollutants including PM₁₀ and PM_{2.5}.

Table 3: AQI Descriptor Categories and Health Effects

AQI Range	Descriptor Category	
0-50	Good (G)	
51-100	Moderate (M)	
101-150	Unhealthy for Sensitive Groups (USG)	
151-200	Unhealthy (UH)	
201-300	Very Unhealthy (VUH)	
301 and above	Hazardous (HAZ)	

Index & Category	Health Effects	Cautionary Statements
101-150, Unhealthy for Sensitive Groups	Increasing likelihood of respiratory symptoms and breathing discomfort in active children and adults and people with respiratory disease, such as asthma.	Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor activity.
151-200, Unhealthy	Greater likelihood of respiratory symptoms and breathing difficulties in active children and adults and people with respiratory disease, such as asthma. Possible respiratory effects in general population.	Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children should limit prolonged outdoor exertion.
201-300, Very Unhealthful	Increasingly severe symptoms and impaired breathing likely in active children and adults and people with respiratory disease, such as asthma: increasing likelihood of respiratory effects in general population.	Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.
301-500, Hazardous	Severe respiratory effects and impaired breathing likely in active children and adults and people with respiratory disease, such as asthma: increasingly severe respiratory effects likely in general population.	Everyone should avoid all outdoor exertion.

Once all the subindices for the various pollutants have been computed, the highest is chosen by inspection. That is the AQI for the area, and the pollutant giving rise to it is the "critical pollutant". Thus if, for Anytown, Illinois, we obtained the following subindices:

O ₃	= 45
SO ₂	= 23
CO	= 19
PM ₁₀	= 41
PM _{2.5}	= 61

Anytown's AQI for that day would be 61, which is in the Moderate category, and the Critical Pollutant would be particulates (PM_{2.5}). If data for one of the pollutants used in computing AQI is missing, the AQI is computed using the data available, ignoring the missing datum. It occasionally happens that two pollutants have the same subindex; in such cases there are two critical pollutants.

The Illinois EPA issues the AQI for 14 areas, or Sectors, in Illinois (**Table 4**). These correspond to metropolitan areas with populations greater than 100,000.

Illinois AQIs are computed from data up to and including the 3 PM local time readings (4 PM during the May – September portion of the Ozone Season) every weekday. A bulletin giving the AQI numbers, descriptors, critical pollutants, and a forecast of the category for the next day's AQI for each of the sectors is issued over the Illinois Weatherwire, a service of the National Weather Service, about 3:30 PM each work day (4:30 PM during the summer). Almost all TV stations and many radio stations and newspapers receive the Illinois Weatherwire, and are therefore able to inform the public about the AQI either immediately or on the evening news. Additional AQI and forecast information can be obtained on IEPA's web site (<http://www.epa.state.il.us/air/aqi/index.html>) and EPA's AirNow web site (<http://www.airnow.gov>). In the Chicago and Cook County area, AQIs are available on

phone recordings maintained by the Cook County Department of Environmental Control and the Chicago Department of the Environment.

If the AQI subindex for any pollutant in any sector should reach or exceed the Unhealthy (or any higher) category late in the afternoon or on weekends when the AQI is not published, the IEPA puts out a special bulletin on the Illinois Weatherwire.

2006 Illinois AQI Summary

In order to present a more representative AQI, 24-hour calendar day PM_{2.5} and PM₁₀ values from the total network were used to determine the percentages in **Figure 9** even though some of these values were not available for issuing the daily AQI. Air quality was still in the "Good" category most often in 2006. Most Sectors had a higher frequency of "Good" than "Moderate" and "Unhealthy for Sensitive Groups". The exception was the Metro-East sector. Lake County, Aurora & Elgin, Joliet & Will County, Rockford, Quad Cities, Champaign, Normal, Decatur and Springfield sectors had 75 percent or more of the days in the "Good" category. Within AQI sectors there were no occurrences of "Unhealthy" and 7 occurrences of "Unhealthy for Sensitive Groups" air quality in 2006. The sector breakdown for "Unhealthy for Sensitive Groups" was 3 in Metro-East, 2 in Chicago, 1 in the North & West Suburbs, and 1 in Lake County. Outside of AQI sectors there was 1 additional occurrence of "Unhealthy for Sensitive Groups" and no additional occurrences of "Unhealthy". **Figure 9** presents the AQI statistics for each sector. The pie chart shows the percent of time each sector was in a particular category.

In 2006, there were no Ozone Advisories issued in the State. An Advisory is declared when ozone levels have reached the level of the 1-hour standard (0.12 ppm) on a particular day and meteorological conditions are such that these levels are expected again the next day.

Table 4: AQI Sectors in Illinois

Chicago Metropolitan Area:

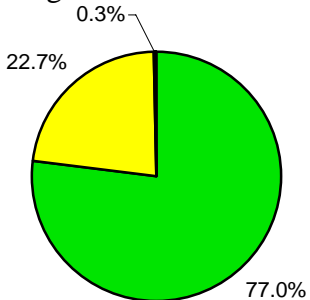
Lake County Sector	Lake County only
North and West Suburbs Sector	Parts of Cook, Du Page, and Mc Henry Counties north of I-290 (the Eisenhower Expressway) and outside of Chicago city limits.
Chicago Sector	All areas within the city limits of Chicago
South and West Suburbs Sector	Parts of Cook and DuPage 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:

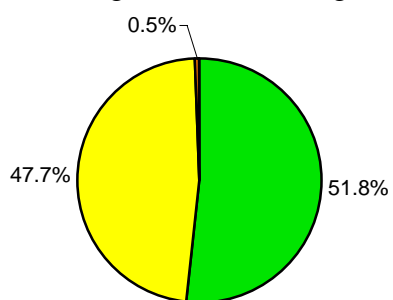
Rockford Sector	Approximately 10 mile diameter circle centered on downtown Rockford
Quad Cities Sector	Illinois portion of the Quad Cities Area
Peoria Sector	Approximately 10 mile diameter circle centered on downtown Peoria in parts of Peoria, Woodford and Tazewell Counties
Champaign Sector	Champaign-Urbana Metropolitan Area
Normal Sector	Bloomington-Normal Metropolitan Area
Decatur Sector	Decatur Metropolitan Area
Springfield Sector	Springfield Metropolitan Area
Metro East Sector	Illinois portion of the St. Louis Metropolitan Area approximately 15 miles wide east of the Mississippi River in Madison and St. Clair Counties

Figure 9: 2006 Air Quality Index Summaries by Sector

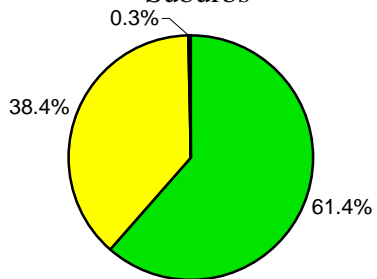
Chicago Sector - Lake County



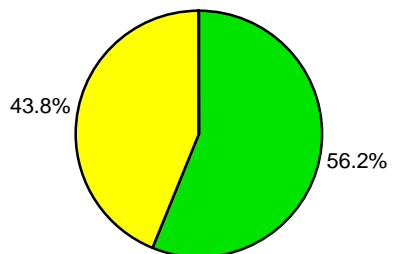
Chicago Sector - Chicago



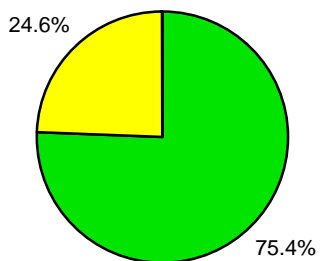
Chicago Sector - North & West Suburbs



Chicago Sector - South & West Suburbs



Aurora - Elgin



Joliet/Will County

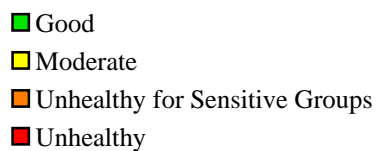
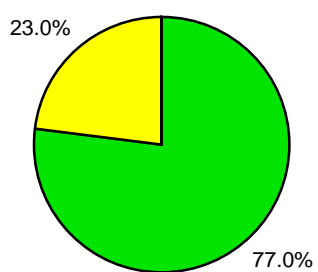


Figure 9: 2006 Air Quality Index Summaries by Sector

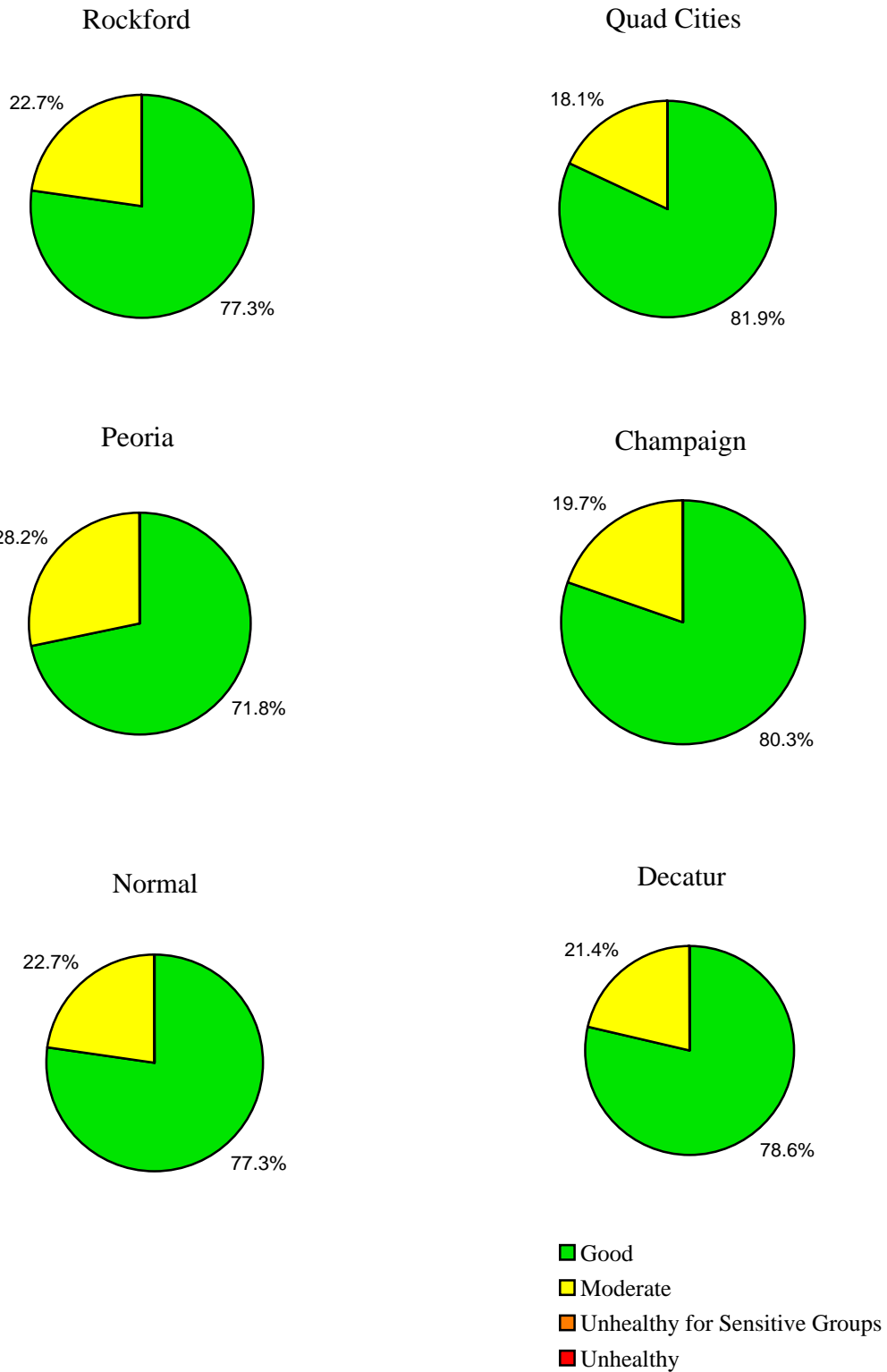
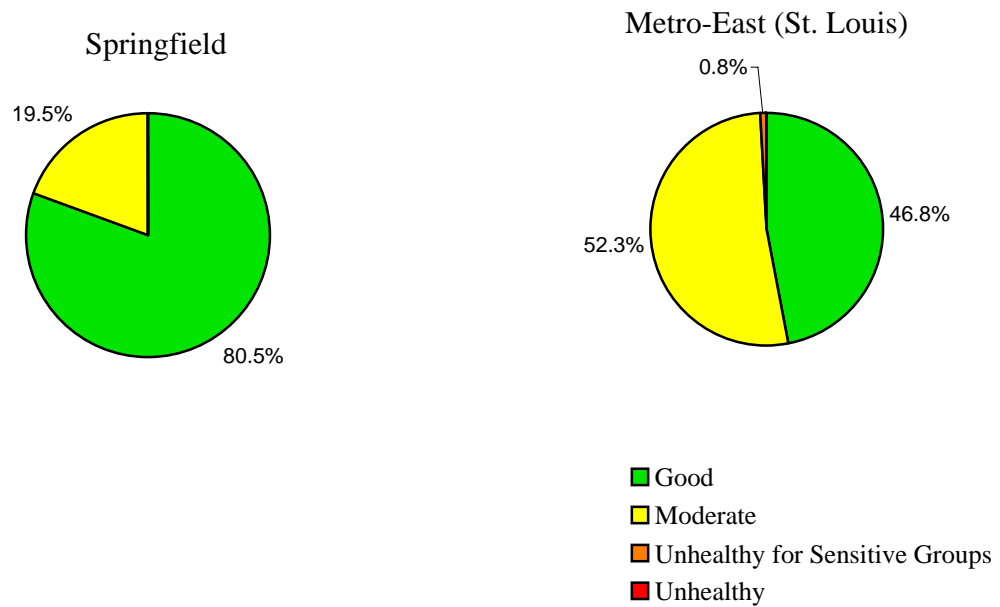


Figure 9: 2006 Air Quality Index Summaries by Sector



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 6,800 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 of 2006. It is important to note emissions 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**.

VOLATILE ORGANIC MATERIAL

Figure 10
Volatile Organic Material
Emission Trend (1000's of Tons/Year)

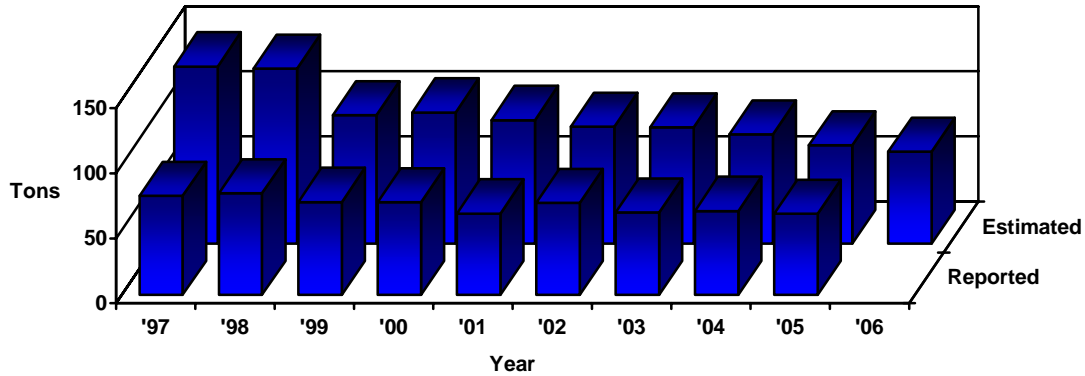


Table 5: Volatile Organic Material Emissions - 2006

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Chemical Manufacturing	16,204.1	22.87%	22.87%
Food/Agriculture	13,800.3	19.48%	42.35%
Surface Coating Operations	9,961.1	14.06%	56.40%
Printing/Publishing	5,449.9	7.69%	64.09%
Fuel Combustion	3,872.9	5.47%	69.56%
Petroleum Product Storage	3,635.6	5.13%	74.69%
Rubber and Plastic Products	2,369.2	3.34%	78.03%
Mineral Products	1,919.3	2.71%	80.74%
Petroleum Industry	1,524.4	2.15%	82.89%
Bulk Terminal/Plants	1,455.6	2.05%	84.95%
Secondary Metal Production	1,245.9	1.76%	86.71%
Organic Chemical Storage	1,230.9	1.74%	88.44%
Fabricated Metal Products	1,010.4	1.43%	89.87%
Site Remediation	871.6	1.23%	91.10%
Organic Solvent Use	697.7	0.99%	92.09%
Primary Metal Production	680.0	0.96%	93.04%
All Other Categories	4,928.6	6.96%	100.00%

PARTICULATE MATTER

**Figure 11
Particulate Emission Trend
(1000's of Tons/Year)**

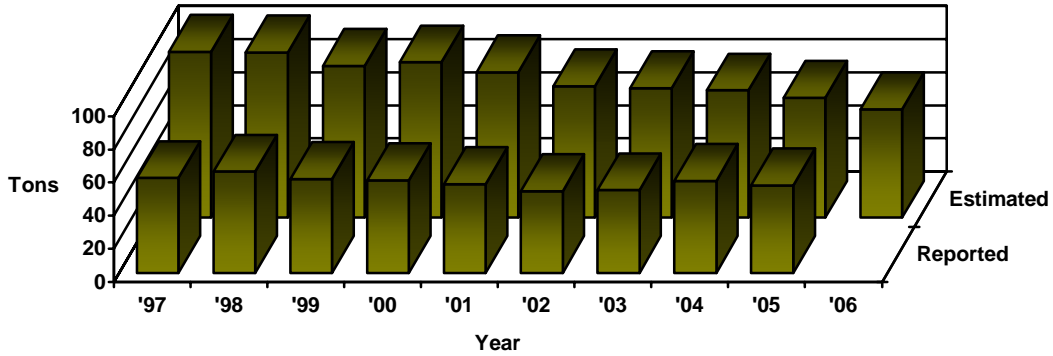


Table 6: Distribution of Particulate Matter Emissions - 2006

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Fuel Combustion	19,927.1	30.48%	30.48%
Mineral Products	16,326.5	24.97%	55.45%
Food/Agriculture	15,961.0	24.41%	79.86%
Petroleum Industry	2,500.9	3.83%	83.68%
Secondary Metal Production	2,162.0	3.31%	86.99%
Primary Metal Production	2,043.1	3.13%	90.12%
Chemical Manufacturing	1,867.4	2.86%	92.97%
Solid Waste Disposal	1,354.4	2.07%	95.04%
Fabricated Metal Products	597.2	0.91%	95.96%
Surface Coating Operations	407.6	0.62%	96.58%
Paper and Wood Products	386.0	0.59%	97.17%
Rubber and Plastic Products	374.0	0.57%	97.74%
All Other Categories	1,476.9	2.26%	100.00%

CARBON MONOXIDE

**Figure 12
Carbon Monoxide Emission
Trend (1000's of Tons/Year)**

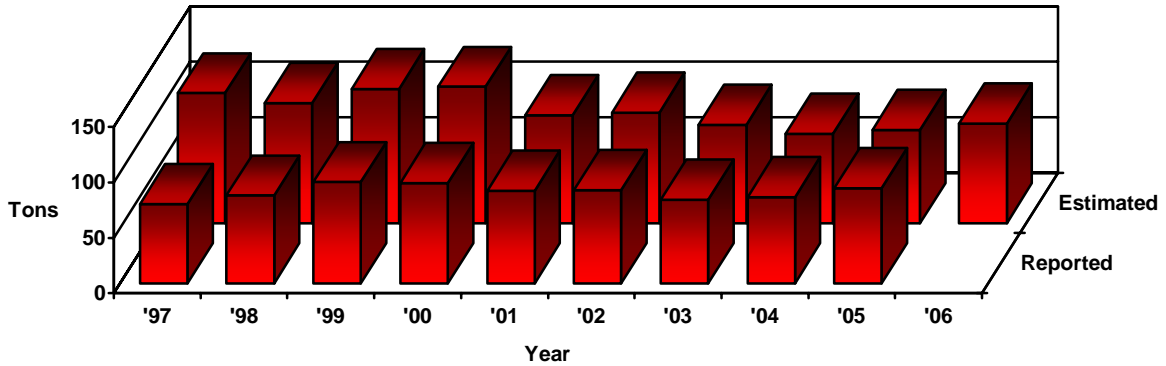


Table 7: Distribution of Carbon Monoxide Emissions - 2006

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Fuel Combustion	33,795.2	37.67%	37.67%
Primary Metal Production	20,861.6	23.25%	60.92%
Mineral Products	9,686.9	10.80%	71.72%
Food/Agriculture	7,465.5	8.32%	80.04%
Petroleum Industry	6,094.2	6.79%	86.83%
Chemical Manufacturing	3,186.9	3.55%	90.39%
Solid Waste Disposal	2,454.0	2.74%	93.12%
Secondary Metal Production	2,443.3	2.72%	95.84%
Fabricated Metal Products	1,568.3	1.75%	97.59%
In-Process Fuel Use	1,176.6	1.31%	98.90%
All Other Categories	984.2	0.91%	100.00%

SULFUR DIOXIDE

Figure 13
Sulfur Dioxide Emission
Trend (1000's of Tons/Year)

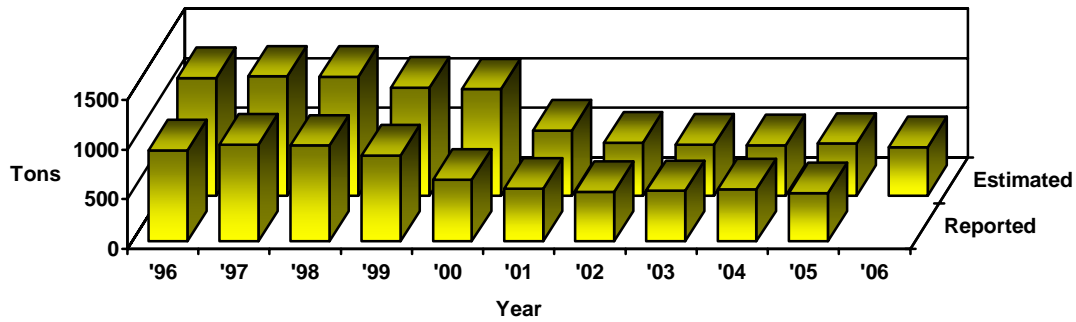


Table 8: Distribution of Sulfur Dioxide Emissions - 2006

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Fuel Combustion	398,970.4	81.83%	81.83%
Petroleum Industry	43,914.5	9.01%	90.83%
Mineral Products	18,033.2	3.70%	94.53%
Chemical Manufacturing	16,870.3	3.46%	97.99%
In-Process Fuel Use	4,027.9	0.83%	98.82%
Food/Agriculture	2,575.5	0.53%	99.34%
Primary Metal Production	1,563.5	0.32%	99.67%
All Other Categories	1,633.0	0.34%	100.00%

NITROGEN OXIDES

**Figure 14
Nitrogen Oxide Emission
Trend (1000's of Tons/Year)**

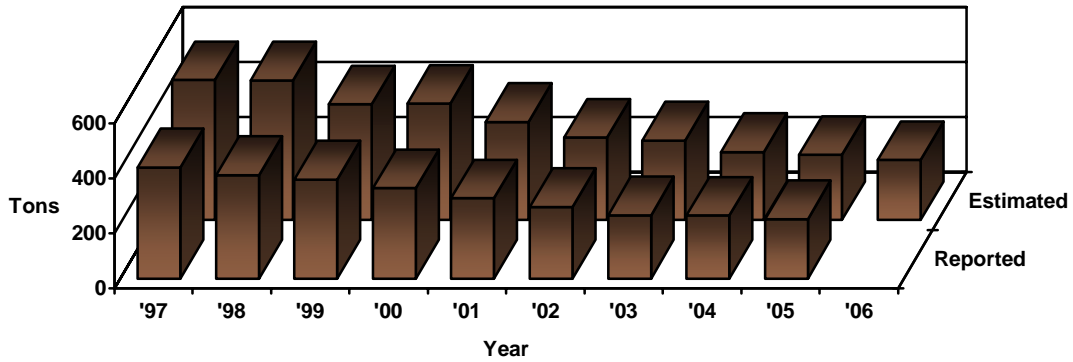


Table 9: Distribution of Nitrogen Oxide Emissions - 2006

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Fuel Combustion	180,610.4	82.40%	82.40%
Mineral Products	15,535.3	7.09%	89.48%
Petroleum Industry	11,330.6	5.17%	94.65%
In-Process Fuel Use	3,297.6	1.50%	96.16%
Food/Agriculture	1,593.3	0.73%	96.88%
Primary Metal Production	1,413.3	0.65%	97.53%
Chemical Manufacturing	1,262.8	0.58%	98.10%
Solid Waste Disposal	1,082.2	0.49%	98.60%
Secondary Metal Production	1,036.6	0.47%	99.07%
All Other Categories	2,037.6	0.93%	100.00%

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. This network has been designed to measure ambient air quality levels in the various Illinois Air Quality Control Regions (AQCR). Historically, each AQCR 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 A1**. This is the

official noncontinuous sampling schedule used by the Illinois EPA during 2006.

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 Code of Federal Regulations, 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 A3**). All of the industrial sites are considered to be SPMS. **Table A2** 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.

Table A1 2006 - Noncontinuous Sampling Schedule

January

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

February

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

March

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

April

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

May

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

June

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

July

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

August

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

September

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

October

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

November

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

December

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

13 Every 6 Day Sampling Schedule
 22 Every 3 Day Sampling Schedule

- 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 (NO_x and VOC), and meteorology. VOC and NO_x 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.

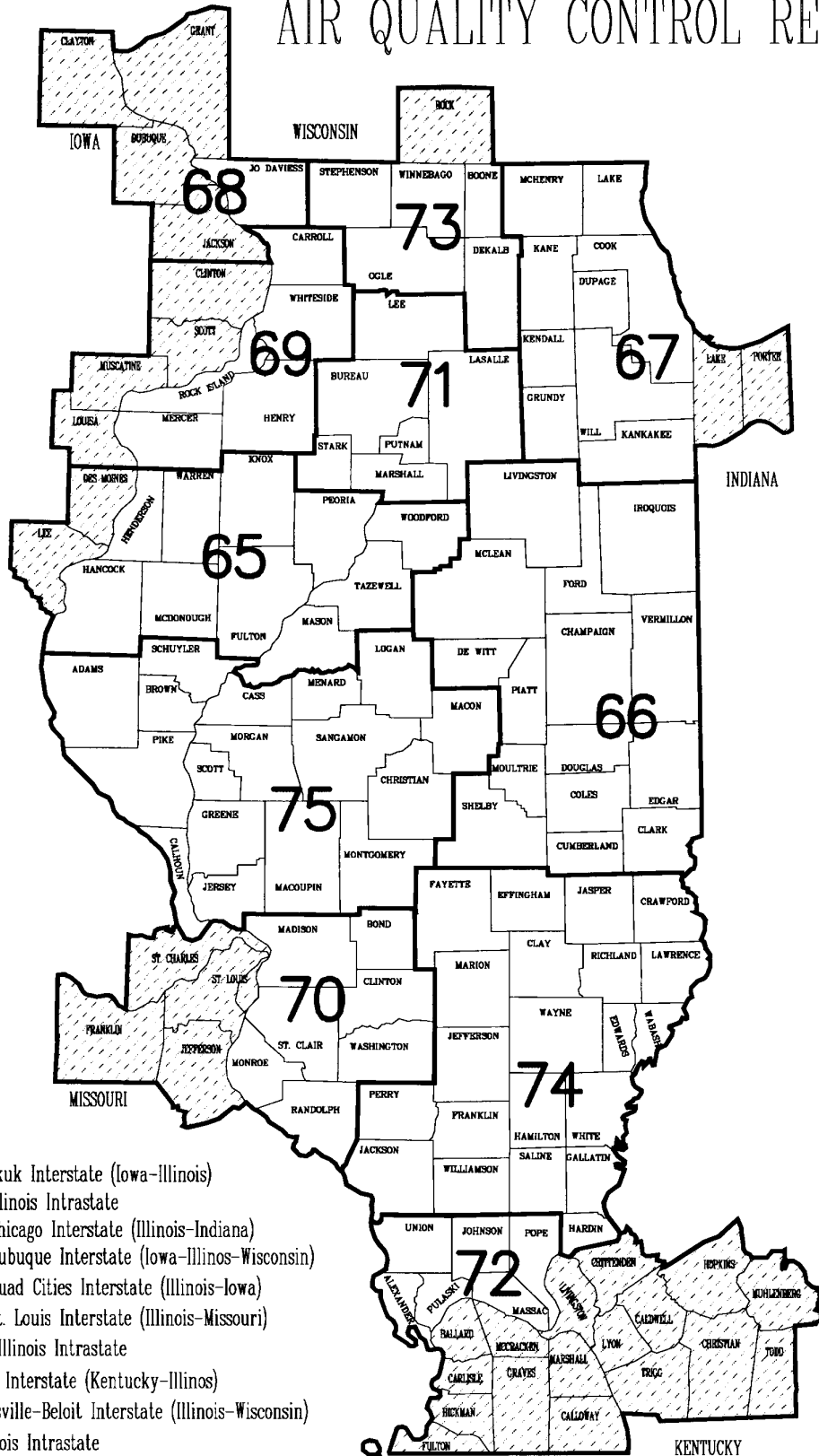
Table A2**DISTRIBUTION OF AIR MONITORING INSTRUMENTS**

	PAMS	NAMS	SLAMS	SPMS	TOTAL
Particulate Matter (PM _{2.5})	0	0	38	13	51
PM _{2.5} Speciation	0	0	6	1	7
Particulate Matter (PM ₁₀)	0	8	8	2	18
Total Suspended Particulates (TSP)	0	0	0	12	12
Lead	0	2	11	0	13
Sulfur Dioxide	0	10	8	3	21
Nitrogen Dioxide	3	2	3	0	8
Ozone	4	10	22	1	37
Carbon Monoxide	0	2	6	0	8
Volatile Organic Compounds/Toxics	2	0	0	2	4
Wind Systems	4	0	0	15	19
Solar Radiation	4	0	0	5	9
Meteorological	4	0	0	0	4
Total	21	34	102	52	209

There were only two change to the monitoring network from 2005 to 2006. The site moves are a result of loss of site access or consolidation. The discontinued sites are a part of the five year Regional Monitoring Strategy.

South Lockport O₃ was permanently discontinued. The PM_{2.5} continuous speciation at Chicago – Springfield was also discontinued.

AIR QUALITY CONTROL REGIONS



- 65 - Burlington-Keokuk Interstate (Iowa-Illinois)
- 66 - East Central Illinois Intrastate
- 67 - Metropolitan Chicago Interstate (Illinois-Indiana)
- 68 - Metropolitan Dubuque Interstate (Iowa-Illinois-Wisconsin)
- 69 - Metropolitan Quad Cities Interstate (Illinois-Iowa)
- 70 - Metropolitan St. Louis Interstate (Illinois-Missouri)
- 71 - North Central Illinois Intrastate
- 72 - Paducah-Cairo Interstate (Kentucky-Illinois)
- 73 - Rockford-Janesville-Beloit Interstate (Illinois-Wisconsin)
- 74 - Southeast Illinois Intrastate
- 75 - West Central Illinois Intrastate

Statewide Map of Air Monitoring Locations

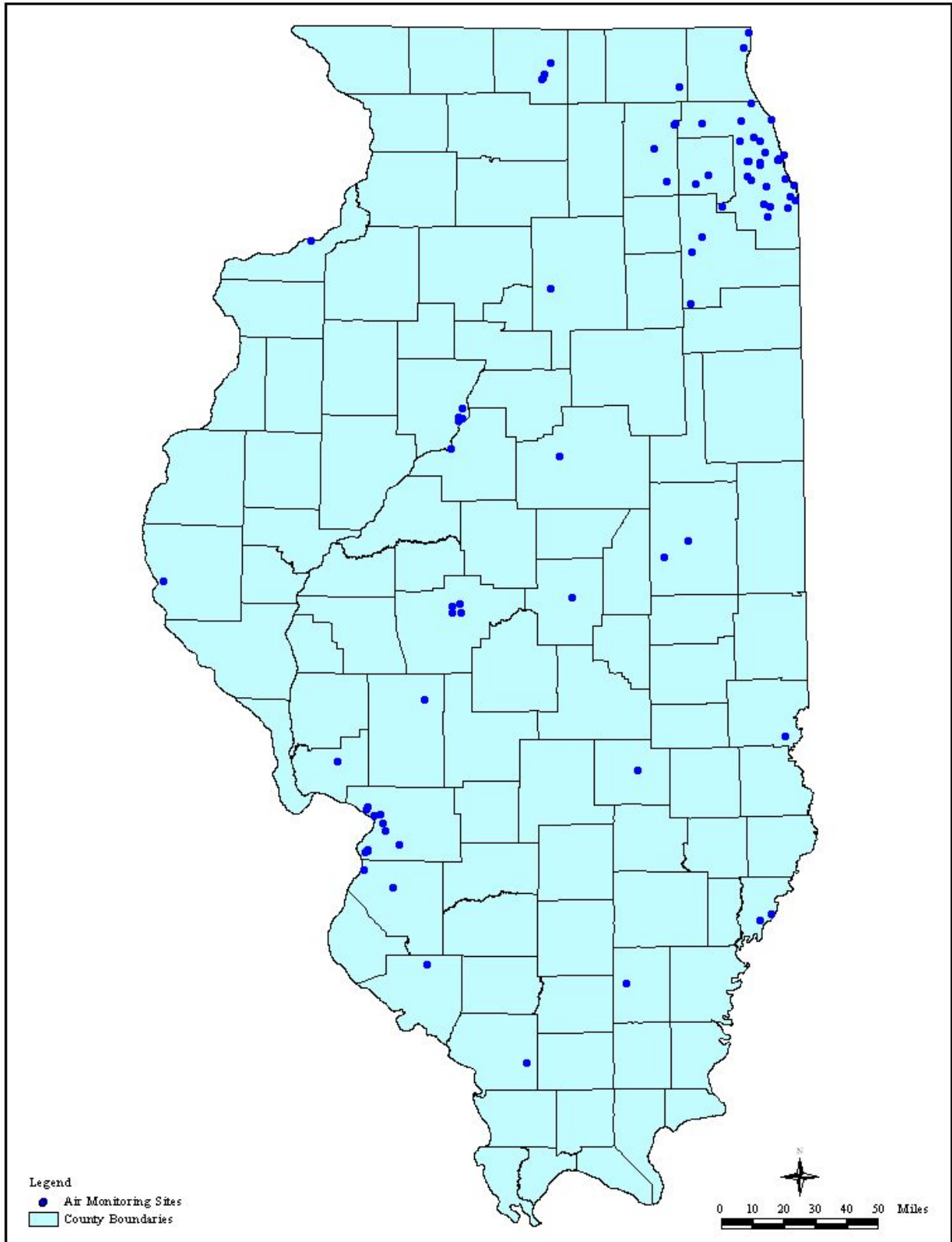


Table A3
2006
SITE DIRECTORY

CITY NAME AIRS CODE	ADDRESS	OWNER/ OPERATOR	UTM COORD. (km)	EQUIPMENT
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)				
PEORIA COUNTY				
Peoria (1430024)	Fire Station #8 MacArthur & Hurlburt	Ill. EPA	N. 4507.113 E. 279.709	NAMS - SO ₂ , O ₃ SPMS - WS/WD
Peoria (1430036)	Commercial Building 1005 N. University	Ill. EPA	N. 4508.748 E. 279.203	SLAMS - CO
Peoria (1430037)	City Office Building 613 N.E. Jefferson	Ill. EPA	N. 4508.336 E. 281.616	NAMS - PM ₁₀ SLAMS - Pb, PM _{2.5} SPMS - TSP, PM _{2.5}
Peoria Heights (1431001)	Peoria Heights H.S. 508 E. Glen Ave.	Ill. EPA	N. 4513.723 E. 281.679	NAMS - O ₃
TAZEWELL COUNTY				
Pekin (1790004)	Fire Station #3 272 Derby	Ill. EPA	N. 4492.693 E. 275.291	NAMS - SO ₂
66 EAST CENTRAL ILLINOIS INTRASTATE				
CHAMPAIGN COUNTY				
Bondville (0191001)	SWS Climate Station Twp. Rd. 500 E.	Ill. EPA/SWS	N. 4434.458 E. 382.927	SLAMS - PM _{2.5}
Champaign (0190004)	Booker T. Washington Elem. Sch. 606 E. Grove	Ill. EPA	N. 4442.222 E. 395.236	SLAMS - O ₃ , PM _{2.5}
McLEAN COUNTY				
Normal (1132003)	ISU Physical Plant Main & Gregory	Ill. EPA	N. 4487.250 E. 330.837	SLAMS - O ₃ , PM _{2.5}
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)				
COOK COUNTY				
Alsip (0310001)	Village Garage 4500 W. 123rd St.	Cook County DEC	N. 4613.507 E. 439.028	SLAMS - O ₃ , Pb, PM ₁₀ SPMS - TSP, WS/WD, PM _{2.5}
Blue Island (0312001)	Eisenhower H.S. 12700 Sacramento	Cook County DEC	N. 4612.496 E. 442.016	NAMS - PM ₁₀ SLAMS - PM _{2.5}

Table A3
2006
SITE DIRECTORY

CITY NAME AIRS CODE	ADDRESS	OWNER/ OPERATOR	UTM COORD. (km)	EQUIPMENT
COOK COUNTY				
Chicago (0310060)	Carver H.S. 13100 S. Doty	Cook County DEC	N. 4611.594 E. 450.911	NAMS - PM ₁₀
Chicago (0310026)	Cermak Pump Sta. 735 W. Harrison	Cook County DEC	N. 4635.707 E. 446.469	SLAMS - Pb SPMS - TSP
Chicago (0310063)	CTA Building 320 S. Franklin	Ill. EPA	N. 4636.096 E. 447.365	NAMS - CO, NO/NO ₂ , SO ₂
Chicago (0310076)	Com Ed Maintenance Bldg. 7801 Lawndale	Cook County DEC	N. 4622.217 E. 440.658	SLAMS - PM _{2.5} /SPEC, O ₃ , NO/NO ₂ , SO ₂ SPMS - WS/WD, PM _{2.5} /SPEC
Chicago (0310072)	Jardine Water Plant 1000 E. Ohio	Ill. EPA	N. 4638.169 E. 449.597	PAMS - NO/NO ₂ , O ₃ , VOC WS/WD, SOL, MET, UV
Chicago (0310052)	Mayfair Pump Sta. 4850 Wilson Ave.	Cook County DEC	N. 4646.216 E. 437.859	NAMS - Pb SLAMS - PM _{2.5} SPMS - TSP
Chicago (0310042)	Sears Tower Wacker @ Adams	Ill. EPA	N. 4636.320 E. 447.265	SPMS - O ₃
Chicago (0310050)	Southeast Police Sta. 103rd & Luella	Cook County DEC	N. 4617.465 E. 452.697	NAMS - SO ₂ SLAMS - PM _{2.5}
Chicago (0310032)	South Water Filtration Plant 3300 E. Cheltenham Pl.	Cook County DEC	N. 4622.596 E. 454.663	SLAMS - O ₃
Chicago (0310057)	Springfield Pump Sta. 1745 N. Springfield. Ave.	Cook County DEC	N. 4640.354 E. 440.064	SLAMS - PM _{2.5} /SPEC SPMS - PM _{2.5}
Chicago (0311003)	Taft H.S. 6545 W. Hurlbut St.	Cook County DEC	N. 4648.125 E. 434.392	SLAMS - O ₃
Chicago (0310064)	University of Chicago 5720 S. Ellis Ave.	Cook County DEC	N. 4626.508 E. 450.010	SLAMS - O ₃ SPMS - SOL
Chicago (0310022)	Washington H.S. 3535 E. 114th St.	Cook County DEC	N. 4615.184 E. 455.117	SLAMS - Pb, PM _{2.5} , PM ₁₀ SPMS - TSP, PM _{2.5}
Cicero (0316005)	Liberty School 13 th St. & 50 th Ave.	Cook County DEC	N. 4634.780 E. 437.846	SLAMS - PM _{2.5}

Table A3
2006
SITE DIRECTORY

CITY NAME AIRS CODE	ADDRESS	OWNER/ OPERATOR	UTM COORD. (km)	EQUIPMENT
COOK COUNTY				
Cicero (0314002)	Trailer 1820 S. 51st Ave.	Cook County DEC	N. 4633.763 E. 437.541	NAMS - SO ₂ , NO/NO ₂ SLAMS - O ₃ , CO
Des Plaines (0314007)	Regional Office Building 9511 W. Harrison St.	Ill EPA	N. 4656.615 E. 428.577	SLAMS - O ₃ , PM _{2.5} SPMS - PM _{2.5} ^d
Evanston (0317002)	Water Pumping Sta. 531 E. Lincoln	Ill. EPA	N. 4656.649 E. 444.221	NAMS - O ₃ SPMS - WS/WD
Lemont (0311601)	Trailer 729 Houston	Cook County DEC	N. 4613.403 E. 417.538	SLAMS - SO ₂ , O ₃
Lyons Township (0311016)	Village Hall 50th St. & Glencoe	Ill. EPA	N. 4627.820 E. 430.886	SLAMS - PM ₁₀ , PM _{2.5}
Maywood (0316003)	4th District Court Bldg 1500 Maybrook Dr.	Cook County DEC	N. 4635.994 E. 431.467	NAMS - Pb
Maywood (0316004)	Com Ed Maintenance 1505 S. First Ave.	Cook County DEC	N. 4635.695 E. 431.200	NAMS - CO
Maywood (0316006)	4th District Court Bldg 1500 Maybrook Dr.	Cook County DEC	N. 4635.994 E. 431.467	SPMS - PM ₁₀ , PM _{2.5}
Midlothian (0311901)	Bremen High Sch. 15205 Crawford Ave.	Cook County DEC	N. 4607.283 E. 440.383	SLAMS - PM ₁₀
Northbrook (0314201)	Northbrook Water Plant 750 Dundee Rd.	Ill. EPA	N. 4665.414 E. 433.955	PAMS - O ₃ , NO/NO ₂ , VOC WS/WD, SOL, MET SLAMS - PM _{2.5} /SPEC, SO ₂ , Pb, PM ₁₀ SPMS - Hg, TOX, TSP
Schiller Park (0313103)	IEPA Trailer 4743 Mannheim Rd.	Ill. EPA	N. 4646.084 E. 427.387	SLAMS - CO, NO/NO ₂ , Pb, PM _{2.5} SPMS - TSP, TOX, WS/WD
Summit (0313301)	Graves Elem. Sch. 60th St. & 74th Ave.	Cook County DEC	N. 4625.756 E. 433.074	SLAMS - PM ₁₀ , Pb, PM _{2.5} SPMS - TSP

Table A3
2006
SITE DIRECTORY

CITY NAME AIRS CODE	ADDRESS	OWNER/ OPERATOR	UTM COORD. (km)	EQUIPMENT
DUPAGE COUNTY				
Lisle (0436001)	Morton Arboretum Route 53	III. EPA	N. 4629.361 E. 410.891	SLAMS - O ₃ SPMS - WS/WD
Naperville (0434002)	City Hall 400 S. Eagle St.	III. EPA	N. 4624.786 E. 404.208	SLAMS - PM _{2.5} /SPEC SPMS - PM _{2.5}
KANE COUNTY				
Aurora (0890007)	Health Department 1240 N. Highland	III. EPA	N. 4626.728 E. 389.533	SLAMS - PM _{2.5}
Elgin (0890005)	Larsen Junior H.S. 665 Dundee Rd.	III. EPA	N. 4655.844 E. 394.654	NAMS - O ₃
Elgin (0890003)	McKinley School 258 Lovell St.	III. EPA	N. 4655.941 E. 394.048	SLAMS - PM _{2.5}
Wasco (DISC) (0893001)	Wasco School 4N782 School St.	III. EPA	N. 4643.751 E. 383.636	SPMS - PM ₁₀
LAKE COUNTY				
Waukegan (0971002)	North Fire Station Golf & Jackson Sts.	III. EPA	N. 4692.854 E. 430.744	NAMS - O ₃
Zion (0971007)	Camp Logan Illinois Beach State Park	III. EPA	N. 4701.795 E. 433.407	PAMS - O ₃ , WS/WD, SOL, MET SLAMS - PM _{2.5}
Mc HENRY COUNTY				
Cary (1110001)	Cary Grove H.S. 1st St. & Three Oaks Rd.	III. EPA	N. 4674.900 E. 397.486	NAMS - O ₃ SLAMS - PM _{2.5} SPMS - PM _{2.5}
WILL COUNTY				
Braidwood (1971011)	Com Ed Training Center 36400 S. Essex Road	III. EPA	N. 4563.825 E. 400.172	PAMS - O ₃ , NO/NO ₂ , WS/WD, SOL, MET SLAMS - PM _{2.5}
Joliet (1971002)	Pershing Elem. Sch. Midland & Campbell Sts.	III. EPA	N. 4597.636 E. 406.854	NAMS - PM ₁₀ SLAMS - PM _{2.5}
Joliet (1970013)	Water Plant West Rte. 6 & Young Rd.	III. EPA	N. 4590.279 E. 401.284	NAMS - SO ₂

Table A3
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SITE DIRECTORY

CITY NAME AIRS CODE	ADDRESS	OWNER/ OPERATOR	UTM COORD. (km)	EQUIPMENT
69 METROPOLITAN QUAD CITIES INTERSTATE (IA - IL)				
ROCK ISLAND COUNTY				
Rock Island (1613002)	Rock Island Arsenal 32 Rodman Ave.	III. EPA	N. 4598.661 E. 707.185	NAMS - O ₃ SLAMS - PM _{2.5} SPMS - WS/WD, SOL
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)				
MADISON COUNTY				
Alton (1190008)	Clara Barton Elem. Sch. 409 Main St.	III. EPA	N. 4308.245 E. 747.375	SLAMS - O ₃
Alton (1192009)	SIU Dental Clinic 1700 Annex. St.	III. EPA	N. 4309.690 E. 747.752	SLAMS - PM _{2.5} /SPEC
Edwardsville (1192007)	RAPS Trailer Poag Road	III. EPA	N. 4297.793 E. 757.118	SPMS - WS/WD
Granite City (1191007)	Fire Station #1 23rd & Madison	III. EPA	N. 4287.661 E. 748.745	SLAMS - PM _{2.5}
Granite City (1190010)	Air Products 15th & Madison	III. EPA	N. 4286.516 E. 747.561	NAMS - PM ₁₀ SLAMS - Pb SPMS - TSP
Granite City (DISC) (1190023)	VFW Building 2040 Washington	III. EPA	N. 4287.099 E. 748.427	NAMS - PM ₁₀ SLAMS - PM _{2.5}
Maryville (1191009)	Southwest Cable TV 200 W. Division	III. EPA	N. 4290.382 E. 242.680	SLAMS - O ₃
South Roxana (1191010)	S. Roxana Grade Sch. Michigan St.	III. EPA	N. 4301.623 E. 755.369	SLAMS - SO ₂
Wood River (1193007)	Water Treatment Plant 54 N. Walcott	III. EPA	N. 4305.084 E. 751.138	NAMS - SO ₂ , O ₃ , PM ₁₀ SLAMS - Pb, PM _{2.5} SPMS - TSP
Wood River (1193009)	VIM Test Station 1710 Vaughn Road	III. EPA	N. 4305.786 E. 754.204	SLAMS - SO ₂
RANDOLPH COUNTY				
Houston (1570001)	IEPA Trailer Hickory Grove & Fallview	III. EPA	N. 4229.049 E. 255.745	SLAMS - SO ₂ , O ₃ , PM _{2.5}

Table A3
2006
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. 4277.363 E. 747.251	NAMS - SO ₂ , PM ₁₀ SLAMS - NO/NO ₂ , Pb, O ₃ , PM _{2.5} , CO SPMS - TSP, WS/WD, PM _{2.5} , SOL
Swansea (1634001)	Village Maintenance Bldg. 1500 Caseyville Ave.	III. EPA	N. 4268.615 E. 239.086	SLAMS - PM _{2.5}
71 NORTH CENTRAL ILLINOIS INTRASTATE				
LA SALLE COUNTY				
Oglesby (0990007)	308 Portland Ave.	III. EPA	N. 4573.311 E. 328.401	SLAMS - PM ₁₀ , PM _{2.5} , SO ₂ SPMS - WS/WD, PM _{2.5}
73 ROCKFORD - JANESVILLE - BELOIT INTERSTATE (IL - WI)				
WINNEBAGO COUNTY				
Loves Park (2012001)	Maple Elem. Sch. 1405 Maple Ave.	III. EPA	N. 4688.756 E. 332.098	NAMS - O ₃ SPMS - WS/WD
Rockford (2010009)	Walker Elem. Sch. 1500 Post St.	III. EPA	N. 4683.537 E. 328.760	NAMS - O ₃
Rockford (2010013)	Health Department 201 Division St.	III. EPA	N. 4681.107 E. 327.394	SLAMS - PM _{2.5}
Rockford (2010011)	City Hall 425 E. State	III. EPA	N. 4681.390 E. 327.817	SLAMS - CO
74 SOUTHEAST ILLINOIS INTRASTATE				
EFFINGHAM COUNTY				
Effingham (0491001)	Central Junior H.S. Route 45 South	III. EPA	N. 4325.158 E. 365.999	SLAMS - O ₃
HAMILTON COUNTY				
Knight Prairie Township (0650002)	Ten Mile Creek DNR Office SR 14	III. EPA	N. 4216.177 E. 357.489	SLAMS - O ₃ , PM _{2.5} SPMS - WS/WD, SOL, PM _{2.5}
JACKSON COUNTY				
Carbondale (0770004)	Maintenance Bldg. 607 E. College	III. EPA SIU	N. 4177.180 E. 305.291	SLAMS - PM ₁₀

Table A3
2006
SITE DIRECTORY

CITY NAME AIRS CODE	ADDRESS	OWNER/ OPERATOR	UTM COORD. (km)	EQUIPMENT
WABASH COUNTY				
Mount Carmel (1850001)	Division St.	Public Service of Indiana	N. 4249.965 E. 432.444	SPMS - SO ₂
Rural Wabash County (1851001)	South of SR-1	Public Service of Indiana	N. 4246.929 E. 427.104	SPMS - SO ₂
75 WEST CENTRAL ILLINOIS INTRASTATE				
ADAMS COUNTY				
Quincy (0010006)	St. Boniface Elem. Sch. 732 Hampshire	Ill. EPA	N. 4421.541 E. 636.350	SLAMS - PM _{2.5} , SO ₂ , O ₃ SPMS - WS/WD
JERSEY COUNTY				
Jerseyville (0831001)	Illini Jr. H.S. Liberty St. & County Rd.	Ill. EPA	N. 4332.242 E. 731.368	SLAMS - O ₃ , PM _{2.5}
MACON COUNTY				
Decatur (1150013)	IEPA Trailer 2200 N. 22nd	Ill. EPA	N. 4414.538 E. 335.308	NAMS - SO ₂ SLAMS - O ₃ , PM _{2.5} /SPEC SPMS - WS/WD, PM _{2.5}
MACOUPIN COUNTY				
Nilwood (1170002)	IEPA Trailer Heaton & Dubois	Ill. EPA	N. 4364.498 E. 258.043	SLAMS - O ₃ , SO ₂ , Pb, PM ₁₀ SPMS - TSP, WS/WD, SOL CO ₂ , UV
SANGAMON COUNTY				
Springfield (1670006)	Sewage Treatment Plant 3300 Mechanicsburg Rd.	Ill. EPA	N. 4408.840 E. 278.158	NAMS - SO ₂
Springfield (1670008)	Federal Building 6th St. & Monroe	Ill. EPA	N. 4408.623 E. 273.327	SLAMS - CO
Springfield (1670010)	Public Health Warehouse 2875 N. Dirksen Pkwy.	Ill. EPA	N. 4413.490 E. 277.134	SLAMS - O ₃
Springfield (1670012)	Agriculture Building State Fair Grounds	Ill. EPA	N. 4412.448 E. 273.728	SLAMS - PM _{2.5}

Table A3

**2006
SITE DIRECTORY**

CITY NAME	OWNER/			
AIRS CODE	ADDRESS	OPERATOR	UTM COORD. (km)	EQUIPMENT

Summary of Equipment Codes for the Site Directory

- TSP - Total Suspended Particulates
- PM₁₀ - Particulate Matter (10 microns or smaller)
- PM_{2.5} - Particulate Matter (2.5 microns or smaller)
- SPEC - PM_{2.5} Speciation
- SO₂ - Sulfur Dioxide
- NO - Nitric Oxide
- NO₂ - Nitrogen Dioxide
- CO - Carbon Monoxide
- CO₂ - Carbon Dioxide
- O₃ - Ozone
- Pb - Lead
- VOC - Volatile Organic Compounds
- TOX - Toxic Compounds
- Hg - Mercury
- WS/WD - Wind Speed and Wind Direction
- SOL - Total Solar Radiation
- MET - Temperature, Relative Humidity, Barometric Pressure
- UV - Ultra-violet Radiation
- RAIN - Rainfall
- (n) - Instrument installed during 2005
- (d) - Instrument removed during 2005
- NEW - Site started during 2005
- DISC - Site discontinued during or at the end of 2005

SLAMS Designations

- NAMS - National Air Monitoring Site
- PAMS - Photochemical Assessment Monitoring Site
- SLAMS - State and Local Air Monitoring Site
- SPMS - Special Purpose Air Monitoring Site

UTM Coordinates

- N. - Northing Coordinate (in kilometers)
- E. - Easting Coordinate (in kilometers)

APPENDIX B

AIR QUALITY DATA SUMMARY TABLES

B.1 AIR QUALITY DATA INTERPRETATION

In order to provide a uniform procedure for determining whether a sufficient amount of air quality data has been collected by a sensor in a given time period (year, quarter, month, day, etc.) to accurately represent air quality during that time period, a minimum statistical selection criteria was developed.

In order to calculate an annual average for noncontinuous parameters, a minimum of 75% of the data that was scheduled to be collected must be available, i.e., 45 samples per year for an every-six-day schedule (total possible of 60 samples). Additionally, in order to have proper quarterly balance, each site on an every sixth day schedule should have at least 10 samples per calendar quarter. This provides for a 20% balance in each quarter if the minimum required annual sampling is achieved.

For lead results which must be compared to a quarterly standard, 75% of the possible samples in each quarter must be obtained. Thus for a valid lead quarterly average, a total of 12 values must be available.

PM₁₀ and PM_{2.5} samplers operate on one of three sampling frequencies:

- Every-day sampling (68 samples required each quarter for 75% data capture)
- Every-third-day sampling (23 samples required each quarter for 75% data capture)
- Every-six-day sampling (12 samples required each quarter for 75% data capture).

To calculate an annual PM₁₀ or PM_{2.5} mean, arithmetic means are calculated for each quarter in which valid data is recorded in at least 75% of the possible sampling periods.

The annual mean is then the arithmetic average of the four quarterly means.

To determine an annual average for continuous data 75% of the total possible yearly observations are necessary, i.e., a minimum of 6570 hours (75% of the hours available) were needed in 2006. In order to provide a balance between the respective quarters, each quarter should have at least 1300 hours which is 20% of the 75% minimum annual requirement. To calculate quarterly averages at sites which do not meet the annual criteria, 75% of the total possible observations in a quarter are needed, i.e., a minimum of 1647 hours of 2200 hours available. Monthly averages also require 75% of the total possible observations in a month, i.e., 540 hours as a minimum. Additionally, for short-term running averages (24 hour, 8 hour, 3 hour) 75% of the data during the particular time period is needed, i.e, 18 hours for a 24-hour average, 6 hours for an 8-hour average and 3 hours for a 3-hour average.

For ozone, a valid day for 1-hour samples must have 75% of the hours between 9 a.m. and 9 p.m. otherwise it is considered missing. A missing day can be considered valid if the peak ozone concentration on the preceding and succeeding days is less than 0.090 ppm. The expected exceedences are actual exceedences adjusted for the percent of missing days. For 8-hour samples, forward running averages are computed for each hour which includes the next seven hours as well. A valid 8-hour average has at least 6 valid 1-hour averages within the 8-hour period. A valid 8-hour day contains at least 75% (18) of the possible 8-hour running averages. Complete sampling over a three year period requires an average of 90% valid days with each year having at least 75% valid days.

Data listed as not meeting the minimum statistical selection criteria in this report were so noted after evaluation using the criteria above. Although short term averages (3, 8, 24 hours) have been computed for certain sites not meeting the annual 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 number of significant figures specified by that standard. For example, to exceed the 0.12 ppm hourly ozone standard, an hourly value must be 0.125 ppm or higher, to exceed the 9 ppm CO 8-hour standard, an 8-hour average must be 9.5 ppm or higher. Peak averages, though, will be expressed to the number of significant figures appropriate to that monitoring methodology.

National Ambient Air Quality Standards (NAAQS) for sulfur dioxide (SO₂) and carbon monoxide (CO) have short-term standards for ambient air concentrations (24 hours or less) not to be exceeded more than once per year. Particulate Matter (PM₁₀) has a 24-hour standard which cannot average more than 1 over a three year period (total of 3 in three years). Particulate Matter (PM_{2.5}) has a 24-hour standard which is a 3-year average of each year's 98th percentile values. In the case of ozone, the expected number of exceedances (one hour per day greater than 0.12 ppm) may not average more than one per year in any period of three consecutive years. The 8-hour ozone standard is concentration based and as such is the average of the fourth highest value each year over a three year period. The standards are promulgated in this manner in order to protect the public from excessive levels of pollution both in terms of acute and chronic health effects.

The following data tables detail and summarize air quality in Illinois in 2006. The tables of short term exceedences list those sites which exceeded any of the short term primary standards (24 hours or less). The detailed data tables list averages and peak concentrations for all monitoring sites in Illinois.

Table B1

**2006
OZONE IN EXCESS OF THE FORMER 1-HOUR
PRIMARY STANDARD OF 0.12 PARTS PER MILLION**

STATION	ADDRESS	DATE	MAXIMUM VALUE (PPM)
NONE			

Table B1

**2006
OZONE IN EXCESS OF THE 8-HOUR
PRIMARY STANDARD OF 0.08 PARTS PER MILLION**

DATE	STATION	ADDRESS	MAXIMUM VALUE (PPM)
Jun 16	Waukegan	Golf & Jackson	0.085
Jul 15	East St. Louis	13th & Tudor	0.097
Jul 17	Alton	409 Main St.	0.085
Jul 18	East St. Louis	13th & Tudor	0.098
	Maryville	200 W. Division	0.089
Jul 29	Evanston	531 Lincoln	0.089

Table B2

**2006
OZONE**

STATION	ADDRESS	NUMBER OF DAYS GREATER THAN				HIGHEST SAMPLES (parts per million)					
		0.12 PPM	0.08 PPM	1ST	1-HOUR			8-HOUR			
					2ND	3RD	4TH	1ST	2ND	3RD	4TH
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)											
PEORIA COUNTY											
Peoria	Hurlburt & MacArthur	0	0	0.081	0.073	0.072	0.071	0.070	0.069	0.067	0.067
Peoria Heights	508 E. Glen	0	0	0.085	0.075	0.075	0.074	0.073	0.072	0.071	0.070
66 EAST CENTRAL ILLINOIS INTRASTATE											
CHAMPAIGN COUNTY											
Champaign	606 E. Grove	0	0	0.080	0.076	0.070	0.070	0.075	0.068	0.066	0.064
McLEAN COUNTY											
Normal	Main & Gregory	0	0	0.082	0.080	0.080	0.079	0.076	0.076	0.072	0.072
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)											
COOK COUNTY											
Alsip	4500 W. 123rd St.	0	0	0.087	0.085	0.083	0.082	0.080	0.079	0.078	0.078
Chicago - Com Ed	7801 Lawndale	0	0	0.098	0.085	0.082	0.079	0.079	0.077	0.076	0.075
Chicago - Jardine	1000 E. Ohio	0	0	0.103	0.097	0.085	0.077	0.083	0.082	0.078	0.065
Chicago - SWFP	3300 E Cheltenham	0	0	0.096	0.089	0.082	0.080	0.079	0.079	0.076	0.075
Chicago - Taft	6545 W. Hurlbut	0	0	0.102	0.098	0.090	0.086	0.084	0.084	0.078	0.077
Chicago - University	5720 S. Ellis	0	0	0.089	0.088	0.085	0.082	0.078	0.077	0.071	0.070
Cicero	1830 S. 51st Ave.	0	0	0.082	0.073	0.070	0.068	0.065	0.064	0.061	0.060
Des Plaines	9511 W. Harrison	0	0	0.089	0.084	0.078	0.074	0.077	0.069	0.065	0.065
Evanston	531 Lincoln	0	1	0.096	0.085	0.084	0.083	0.089	0.076	0.076	0.072
Lemont	729 Houston	0	0	0.087	0.086	0.084	0.082	0.083	0.077	0.071	0.070
Northbrook	750 Dundee Rd.	0	0	0.091	0.091	0.086	0.078	0.084	0.073	0.069	0.068
DuPAGE COUNTY											
Lisle	Morton Arboretum	0	0	0.079	0.074	0.069	0.069	0.072	0.066	0.064	0.062
KANE COUNTY											
Elgin	665 Dundee	0	0	0.078	0.077	0.075	0.070	0.073	0.065	0.065	0.062
LAKE COUNTY											
Waukegan	Golf & Jackson	0	1	0.093	0.087	0.081	0.081	0.085	0.076	0.073	0.071
Zion	Camp Logan	0	0	0.090	0.088	0.081	0.078	0.081	0.072	0.072	0.068
McHENRY COUNTY											
Cary	1st St. & Three Oaks	0	0	0.069	0.068	0.067	0.066	0.060	0.059	0.058	0.057
WILL COUNTY											
Braidwood	36400 S. Essex Rd.	0	0	0.082	0.082	0.077	0.074	0.078	0.076	0.068	0.068

Primary 8-Hour Standard 0.08 ppm

Table B2

2006
OZONE

STATION	ADDRESS	NUMBER OF DAYS GREATER THAN				HIGHEST SAMPLES (parts per million)					
		0.12 PPM	0.08 PPM	1ST	1-HOUR			8-HOUR			
					2ND	3RD	4TH	1ST	2ND	3RD	4TH
69 METROPOLITAN QUAD CITIES INTERSTATE (IA - IL)											
ROCK ISLAND COUNTY											
Rock Island	32 Rodman Ave.	0	0	0.080	0.078	0.078	0.077	0.075	0.074	0.071	0.070
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)											
MADISON COUNTY											
Alton	409 Main St.	0	1	0.109	0.103	0.101	0.095	0.085	0.080	0.080	0.079
Maryville	200 W. Division	0	1	0.118	0.104	0.097	0.095	0.089	0.084	0.077	0.077
Wood River	54 N. Walcott	0	0	0.105	0.099	0.098	0.090	0.081	0.080	0.078	0.077
RANDOLPH COUNTY											
Houston	Twp Rds. 150 & 45	0	0	0.088	0.087	0.083	0.081	0.077	0.076	0.073	0.072
ST. CLAIR COUNTY											
East St. Louis	13th & Tudor	0	2	0.121	0.111	0.095	0.093	0.098	0.097	0.082	0.077
73 ROCKFORD - JANESVILLE - BELOIT INTERSTATE (IL - WI)											
WINNEBAGO COUNTY											
Loves Park	1405 Maple	0	0	0.073	0.070	0.069	0.068	0.066	0.066	0.064	0.063
Rockford	1500 Post	0	0	0.072	0.071	0.070	0.068	0.068	0.065	0.064	0.063
74 SOUTHEAST ILLINOIS INTRASTATE											
EFFINGHAM COUNTY											
Effingham	Route 45 South	0	0	0.085	0.081	0.074	0.074	0.074	0.071	0.070	0.067
HAMILTON COUNTY											
Knight Prairie Twp.	Route 14	0	0	0.079	0.079	0.074	0.073	0.070	0.068	0.068	0.066
75 WEST CENTRAL ILLINOIS INTRASTATE											
ADAMS COUNTY											
Quincy	732 Hampshire	0	0	0.084	0.080	0.080	0.080	0.076	0.073	0.072	0.071
JERSEY COUNTY											
Jerseyville	Liberty St.	0	0	0.096	0.094	0.090	0.085	0.083	0.079	0.077	0.075
MACON COUNTY											
Decatur	2200 N. 22nd St.	0	0	0.088	0.077	0.076	0.076	0.079	0.073	0.072	0.071
MACOUPIN COUNTY											
Nilwood	Heaton & DuBois	0	0	0.088	0.085	0.082	0.077	0.073	0.071	0.070	0.070
SANGAMON COUNTY											
Springfield	2875 N. Dirksen	0	0	0.084	0.080	0.080	0.077	0.074	0.068	0.066	0.066

Primary 8-Hour Standard 0.08 ppm

Table B5

2006
PARTICULATE MATTER (PM_{2.5}) VALUES IN EXCESS
OF THE 24-HOUR PRIMARY STANDARD OF
35 MICROGRAMS PER CUBIC METER

DATE	STATION	ADDRESS	MAXIMUM VALUE (ug/m ³)
Jan 23	Chicago-Mayfair	4840 Wilson Ave.	40.8
Feb 28	Granite City	23 rd and Madison	40.0
Mar 29	Chicago-Mayfair	4840 Wilson Ave.	38.1
Apr 29	Granite City	23 rd and Madison	36.3
May 8	Granite City	2040 Washington	37.2
Aug 12	Granite City	23 rd and Madison	39.9
Aug 18	Chicago-Mayfair	4840 Wilson Ave.	39.7
	Lyons Township	50 th St. & Glencoe Ave.	37.6
	Schiller Park	4743 Mannheim Rd.	37.1
	Chicago-Springfield	1745 N. Springfield Ave.	36.2
	Cicero	13 th St. & 50 th Ave.	36.0
	Summit	60 th St. & 74 th Ave.	36.0
Aug 25	Chicago-Mayfair	4840 Wilson Ave.	42.2
Nov 7	Lyons Township	50 th St. & Glencoe Ave.	37.5
	Peoria	613 N.E. Jefferson	36.5
	Summit	60 th St. & 74 th Ave.	36.0
	Chicago-SE Police	103 rd & Luella	35.6

Table B3

**2006
PARTICULATE MATTER FINE (PM_{2.5})
(micrograms per cubic meter)**

STATION	ADDRESS	TOTAL	NUMBER	98th	HIGHEST SAMPLES				ANNUAL
			OF SAMPLES >35 ug/m ³	PERCENTILE VALUE	1st	2nd	3rd	4th	ARITHMETIC MEAN
65 BURLINGTON-KEOKUK INTERSTATE (IA - IL)									
PEORIA COUNTY									
Peoria	613 N.E. Jefferson	114	1	27.4	36.5	27.9	27.4	24.8	12.1
66 EAST CENTRAL ILLINOIS INTRASTATE									
CHAMPAIGN COUNTY									
Bondville	Twp. Rd. 500 E.	58	0	23.0	24.0	23.0	21.7	21.5	11.1
Champaign	606 E. Grove	60	0	25.6	26.1	25.6	25.2	22.5	12.1
Mc LEAN COUNTY									
Normal	Main & Gregory	57	0	23.8	25.6	23.8	23.5	20.2	11.4
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)									
COOK COUNTY									
Blue Island	12700 Sacramento	121	0	28.1	33.1	31.3	28.1	27.6	13.2
Chicago-Com Ed	7801 Lawndale	117	0	29.0	33.7	33.0	29.0	28.5	13.5
Chicago-Mayfair	4850 Wilson Ave.	326	4	31.6	42.2	40.8	39.7	38.1	14.5
Chicago-SE Police	103rd & Luella	119	1	26.6	35.6	27.6	26.6	26.3	13.3
Chicago-Springfield	1745 N. Springfield Ave.	111	1	27.7	36.2	32.0	27.7	26.8	13.5
Chicago-Washington HS	3535 E. 114th St.	60	0	27.0	31.8	27.0	25.3	23.7	13.2
Cicero	13th St. & 50th Ave.	115	1	29.2	36.0	34.3	29.2	29.0	14.4
Des Plaines	9511 W. Harrison	119	0	26.8	29.7	28.4	26.8	26.3	11.4
Lyons Township	50th St. & Glencoe Ave.	119	2	32.9	37.6	37.5	32.9	30.8	15.6
Northbrook	750 Dundee Road	120	0	27.0	31.6	30.8	27.0	26.8	11.9
Schiller Park	4743 Mannheim Rd.	113	1	30.0	37.1	33.7	30.0	28.5	14.9
Summit	60th St. & 74th Ave.	119	2	27.4	36.0	36.0	27.4	27.4	13.8
Du PAGE COUNTY									
Naperville	400 S. Eagle St.	59	0	25.1	27.3	25.1	24.1	23.8	12.7
KANE COUNTY									
Aurora	1240 N. Highland	59	0	25.4	29.9	25.4	25.2	25.0	12.7
Elgin	258 Lovell St.	59	0	29.8	30.9	29.8	24.6	22.2	11.8
LAKE COUNTY									
Zion	Camp Logan	61	0	25.6	27.8	25.6	25.1	22.8	10.7

+ - Did not meet minimum statistical selection criteria (See Appendix B.1)

Primary 24-Hour Standard 35 ug/m³; Primary Annual Standard 15.0 ug/m³

Table B3

**2006
PARTICULATE MATTER FINE (PM_{2.5})
(micrograms per cubic meter)**

STATION	ADDRESS	TOTAL	NUMBER	98th	HIGHEST SAMPLES				ANNUAL
			OF SAMPLES >35 ug/m ³	PERCENTILE VALUE	1st	2nd	3rd	4th	ARITHMETIC MEAN
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)									
Mc HENRY COUNTY									
Cary	1st St. & Three Oaks Rd.	116	0	27.6	34.3	29.7	27.6	27.5	11.8
WILL COUNTY									
Braidwood	36400 S. Essex Rd.	55	0	21.6	22.0	21.6	20.3	19.3	9.8
Joliet	Midland & Campbell	58	0	25.9	28.3	25.9	22.0	22.0	12.2
69 METROPOLITAN QUAD CITIES INTERSTATE (IA - IL)									
ROCK ISLAND COUNTY									
Rock Island	32 Rodman Ave.	60	0	26.7	26.7	26.7	25.0	20.9	10.4
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)									
MADISON COUNTY									
Alton	1700 Annex St.	60	0	27.6	28.2	27.6	25.8	24.0	13.1
Granite City	23rd & Madison	102	3	36.3	40.0	39.9	36.3	33.1	16.3
Granite City	2040 Washington	116	1	32.9	37.2	33.6	32.9	32.6	16.0
Wood River	54 N. Walcott	120	0	28.3	31.8	31.2	28.3	26.3	13.1
RANDOLPH COUNTY									
Houston	Twp Rds. 150 & 45	56	0	25.7	27.0	25.7	23.4	20.7	11.4
ST. CLAIR COUNTY									
East St. Louis	13th & Tudor	55	0	29.2	32.1	29.2	28.9	28.4	14.6
Swansea	1500 Caseyville Ave.	116	0	28.1	29.9	29.5	28.1	27.5	13.4
71 NORTH CENTRAL ILLINOIS INTRASTATE									
LA SALLE COUNTY									
Oglesby	308 Portland Ave.	119	0	26.0	29.3	28.2	26.0	26.0	11.8
73 ROCKFORD - JANESVILLE - BELOIT INTERSTATE (IL - WI)									
WINNEBAGO COUNTY									
Rockford	201 Division St.	57	0	27.3	33.2	27.3	25.9	25.2	12.3

+ - Did not meet minimum statistical selection criteria (See Appendix B.1)

Primary 24-Hour Standard 35 ug/m³; Primary Annual Standard 15.0 ug/m³

Table B3

**2006
PARTICULATE MATTER FINE (PM_{2.5})
(micrograms per cubic meter)**

STATION	ADDRESS	TOTAL	NUMBER	98th	HIGHEST SAMPLES				ANNUAL
			OF SAMPLES >35 ug/m ³	PERCENTILE VALUE	1st	2nd	3rd	4th	ARITHMETIC MEAN
74 SOUTHEAST ILLINOIS INTRASTATE									
HAMILTON COUNTY									
Knight Prairie Township	State Route 14	56	0	22.3	22.6	22.3	21.0	21.0	11.2
75 WEST CENTRAL ILLINOIS INTRASTATE									
ADAMS COUNTY									
Quincy	732 Hampshire	61	0	26.1	28.1	26.1	24.5	22.5	11.2
JERSEY COUNTY									
Jerseyville	Liberty St.	61	0	27.5	29.5	27.5	22.9	22.4	11.5
MACON COUNTY									
Decatur	2200 N. 22nd	57	0	26.0	26.7	26.0	25.2	22.2	12.2
SANGAMON COUNTY									
Springfield	State Fair Grounds	60	0	28.4	30.1	28.4	23.6	21.4	11.7

+ - Did not meet minimum statistical selection criteria (See Appendix B.1)

Primary 24-Hour Standard 35 ug/m³; Primary Annual Standard 15.0 ug/m³

Table B4
2006
SHORT-TERM TRENDS
PARTICULATE MATTER (PM_{2.5})

STATION	ADDRESS	ANNUAL ARITHMETIC MEANS (ug/m ³)					
		2001	2002	2003	2004	2005	2006
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)							
PEORIA COUNTY							
Peoria	613 N.E. Jefferson	13.9	13.9	13.7	12.8	14.5	12.1
66 EAST CENTRAL ILLINOIS INTRASTATE							
CHAMPAIGN COUNTY							
Bondville	Twp. Rd. 500 E.	+	12.2	+	10.6	14.5	11.1
Champaign	606 E. Grove	12.6	12.2	13.1	10.4	14.0	12.1
McLEAN COUNTY							
Normal	Main & Gregory	14.8	12.9	13.2	11.5	13.4	11.4
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)							
COOK COUNTY							
Blue Island	12700 Sacramento	17.1	+	14.9	14.1	16.4	13.2
Chicago-Com Ed	7801 Lawndale	+	15.7	14.9	14.1	16.6	13.5
Chicago-Farr	3300 S. Michigan Ave.	17.1	15.5	15.1	13.2	-	-
Chicago-Mayfair	48500 Wilson Ave.	19.4	16.5	15.8	15.3	17.0	14.5
Chicago-SE Police	103rd & Luella	+	15.5	15.3	13.8	16.6	13.3
Chicago-Springfield	1745 N. Springfield Ave.	16.2	15.2	15.6	13.7	16.7	13.5
Chicago - Washington HS	3535 E. 114th St.	17.1	15.3	15.6	14.2	16.9	13.2
Cicero	13th St. & 50th Ave.	17.4	16.0	+	15.2	16.3	14.4
Des Plaines	9511 W. Harrison	14.8	14.4	13.2	12.4	13.9	11.4
Lyons Township	50th St. & Glencoe Ave.	20.8	17.7	16.7	16.7	18.3	15.6
Northbrook	750 Dundee Road	14.7	13.2	12.2	11.2	14.5	11.9
Schiller Park	4743 Mannheim Rd.	-	-	-	16.0	17.6	14.9
Summit	60th St. & 74th Ave.	16.5	16.1	15.6	14.3	17.0	13.8
Du PAGE COUNTY							
Naperville	400 S. Eagle St.	15.5	14.7	13.1	12.7	15.6	12.7
KANE COUNTY							
Elgin258 Lovell St.	15.1	14.3	13.3	11.5	15.7	11.8	
Aurora	1240 N. Highland	-	-	-	-	15.9	12.7
LAKE COUNTY							
Zion	Camp Logan	+	13.5	11.3	10.3	13.8	10.7
- Station not in operation during the year.							
+ Did not meet minimum statistical selection criteria (See Appendix B.1).							
Primary Annual Standard 15.0 ug/m³							

Table B4
2006
SHORT-TERM TRENDS
PARTICULATE MATTER (PM_{2.5})

STATION	ADDRESS	ANNUAL ARITHMETIC MEANS (ug/m ³)					
		2001	2002	2003	2004	2005	2006
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)							
Mc HENRY COUNTY							
Cary	1st St. & Three Oaks Rd.	13.7	12.3	12.2	11.3	13.9	11.8
WILL COUNTY							
Braidwood	36400 S. Essex Rd.	12.9	13.5	11.9	10.3	13.2	9.8
Joliet	Midland & Campbell Sts.	16.1	14.4	13.8	+	15.4	12.2
69 METROPOLITAN QUAD CITIES INTERSTATE (IA - IL)							
ROCK ISLAND COUNTY							
Rock Island	32 Rodman Ave.	12.8	11.8	12.8	10.4	13.9	10.4
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)							
MADISON COUNTY							
Alton	1700 Annex St.	15.8	14.7	14.1	11.5	16.0	13.1
Granite City	23rd & Madison	17.3	17.7	17.5	15.4	18.2	16.3
Granite City	2040 Washington	19.7	19.6	18.1	16.2	18.9	16.0
Wood River	54 N. Walcott	15.0	15.1	14.0	13.2	16.0	13.1
RANDOLPH COUNTY							
Houston	Twp Rds. 150 & 45	12.1	11.6	13.4	10.9	15.3	11.4
ST. CLAIR COUNTY							
East St. Louis	13th St. & Tudor Ave.	17.0	16.7	14.8	14.7	17.2	14.6
Swansea	1500 Caseyville Ave.	15.5	15.1	+	13.2	16.0	13.4
71 NORTH CENTRAL ILLINOIS INTRASTATE							
LA SALLE COUNTY							
Oglesby	308 Portland Ave.	14.5	14.8	13.0	11.4	14.1	11.8
73 ROCKFORD - JANESVILLE - BELOIT INTERSTATE (IL - WI)							
WINNEBAGO COUNTY							
Rockford	201 Division St.	-	-	-	-	16.0	12.3

- Station not in operation during the year.

+ Did not meet minimum statistical selection criteria (See Appendix B.1).

Primary Annual Standard 15.0 ug/m³

Table B4
2006
SHORT-TERM TRENDS
PARTICULATE MATTER (PM_{2.5})

STATION	ADDRESS	ANNUAL ARITHMETIC MEANS (ug/m ³)					
		2001	2002	2003	2004	2005	2006
74 SOUTHEAST ILLINOIS INTRASTATE							
HAMILTON COUNTY							
Knight Prairie Township	State Route 14	-	-	-	-	+	11.2
75 WEST CENTRAL ILLINOIS INTRASTATE							
ADAMS COUNTY							
Quincy	732 Hampshire	12.3	13.7	13.4	10.7	14.7	11.2
JERSEY COUNTY							
Jerseyville	Libery St.	-	-	-	11.5	+	11.5
MACON COUNTY							
Decatur	2200 N. 22nd	14.3	14.1	13.6	11.9	14.5	12.2
SANGAMON COUNTY							
Springfield	State Fair Grounds	13.3	13.6	13.0	11.8	15.1	11.7
<p>- Station not in operation during the year.</p> <p>+ Did not meet minimum statistical selection criteria (See Appendix B.1).</p> <p style="text-align: center;">Primary Annual Standard 15.0 ug/m³</p>							

Table B5

**2006
PARTICULATE MATTER (PM₁₀)
(micrograms per cubic meter)**

STATION	ADDRESS	SAMPLING FREQUENCY	NUMBER OF SAMPLES		HIGHEST SAMPLES				ANNUAL
			TOTAL	>150 ug/m ³	1st	2nd	3rd	4th	ARITHMETIC MEAN
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)									
PEORIA COUNTY									
Peoria	613 N.E. Jefferson	6-day	59	0	56	45	43	41	23
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)									
COOK COUNTY									
Alsip	4500 W. 123rd St.	6-day	60	0	40	38	36	34	21
Blue Island	12700 Sacramento	6-day	59	0	39	38	38	38	23
Chicago - Carver	13100 S. Doty	6-day	60	0	61	50	44	43	24
Chicago - Washington HS	3535 E. 114th St.	1-day	365	0	60	56	52	52	22
Lyons Township	50th St. & Glencoe Ave.	1-day	348	0	83	82	82	80	32
Maywood	1500 Maybrook Dr	1-day	330	0	41	41	36	34	+
Midlothian	15205 Crawford Ave.	6-day	59	0	39	37	36	35	21
Northbrook	750 Dundee Road	6-day	59	0	44	42	42	35	17
Summit	60th St. & 74th Ave.	6-day	59	0	43	41	41	38	23
KANE COUNTY									
Wasco	Wasco Elementary Sch.	6-day	59	0	47	46	37	36	17
WILL COUNTY									
Joliet	Midland & Campbell Sts.	6-day	58	0	35	32	28	28	17
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)									
MADISON COUNTY									
Granite City	15th & Madison	6-day	59	0	80	74	65	57	33
Granite City	2040 Washington	1-day	358	0	152	113	92	92	38
Wood River	54 N. Walcott	6-day	57	0	55	52	47	44	25
ST. CLAIR COUNTY									
East St. Louis	13th St. & Tudor Ave.	6-day	58	0	103	76	59	57	34
71 NORTH CENTRAL ILLINOIS INTRASTATE									
LASALLE COUNTY									
Oglesby	308 Portland Ave.	1-day	360	0	69	59	54	53	24
74 SOUTHEAST ILLINOIS INTRASTATE									
JACKSON COUNTY									
Carbondale	607 E. College	6-day	60	0	60	45	34	34	21

Primary 24-Hour Standard 150 ug/m³

Table B5

**2006
PARTICULATE MATTER (PM₁₀)
(micrograms per cubic meter)**

STATION	ADDRESS	SAMPLING FREQUENCY	NUMBER OF SAMPLES		HIGHEST SAMPLES				ANNUAL
			TOTAL	>150 ug/m ³	1st	2nd	3rd	4th	ARITHMETIC MEAN

75 WEST CENTRAL ILLINOIS INTRASTATE

MACOUPIN COUNTY

Nilwood	Heaton & Dubois	6-day	58	0	56	41	39	37	22
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Primary 24-Hour Standard 150 ug/m³

Table B6
2006
SHORT-TERM TRENDS
PARTICULATE MATTER (PM₁₀)

STATION	ADDRESS	ANNUAL ARITHMETIC MEANS (ug/m ³)					2006
		2001	2002	2003	2004	2005	
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)							
PEORIA COUNTY							
Peoria	613 N.E. Jefferson	22	21	25	22	31	23
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)							
COOK COUNTY							
Alsip	4500 W. 123rd St.	27	23	23	24	23	21
Blue Island	12700 Sacramento	28	27	30	26	30	23
Chicago - Carver	13100 S. Doty	35	31	33	30	36	24
Chicago - Washington HS	3535 E. 114th St.	28	24	23	23	26	22
Lyons Township	50th St. & Glencoe Ave.	38	36	32	33	32	32
Maywood	1500 Maybrook Dr	-	-	-	-	22	+
Midlothian	15205 Crawford Ave.	26	23	24	21	28	21
Northbrook	750 Dundee Road	-	-	-	-	-	17
Summit	60th St. & 74th Ave.	+	31	31	30	+	23
KANE COUNTY							
Wasco	Wasco Elementary Sch.	-	-	-	-	22	17
WILL COUNTY							
Joliet	Midland & Campbell Sts.	24	21	27	19	24	17
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)							
MADISON COUNTY							
Granite City	15th & Madison	39	35	32	34	40	33
Granite City	2040 Washington	47	46	38	38	41	38
Wood River	54 N. Walcott	27	23	24	25	30	25
ST. CLAIR COUNTY							
East St. Louis	13th St. & Tudor Ave.	30	30	34	29	35	34
71 NORTH CENTRAL ILLINOIS INTRASTATE							
LASALLE COUNTY							
Oglesby	308 Portland Ave.	22	26	22	25	27	24
74 SOUTHEAST ILLINOIS INTRASTATE							
JACKSON COUNTY							
Carbondale	607 E. College	19	19	19	20	24	21
- Station not in operation during the year.							
+ Did not meet minimum statistical selection criteria (See Appendix B.1).							

Table B6
2006
SHORT-TERM TRENDS
PARTICULATE MATTER (PM₁₀)

STATION	ADDRESS	ANNUAL ARITHMETIC MEANS (ug/m ³)					
		2001	2002	2003	2004	2005	2006

75 WEST CENTRAL ILLINOIS INTRASTATE

MACOUPPIN COUNTY

Nilwood	Heaton & Dubois	19	18	21	17	22	22
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- Station not in operation during the year.
+ Did not meet minimum statistical selection criteria (See Appendix B.1).

Table B7

**2006
CARBON MONOXIDE
(parts per million)**

STATION	ADDRESS	NUMBER OF SAMPLES			HIGHEST SAMPLES (ppm)						
		TOTAL	1-HR >35 PPM	8-HR >9 PPM	1-HOUR AVERAGE			8-HOUR AVERAGE			
			1ST	2ND	3RD	1ST	2ND	3RD			
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)											
PEORIA COUNTY											
Peoria	1005 N. University	8398	0	0	7.9	5.2	4.7	3.3	2.7	2.5	
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)											
COOK COUNTY											
Chicago - CTA Building	320 S. Franklin	8560	0	0	2.8	2.6	2.4	2.0	1.6	1.3	
Cicero	1830 S. 51st Ave.	8704	0	0	3.1	2.9	2.8	1.8	1.8	1.4	
Maywood	1505 S. First Ave	8559	0	0	3.4	3.2	3.2	3.0	2.7	2.2	
Schiller Park	4743 N. Mannheim	8564	0	0	3.3	2.8	2.6	2.2	1.8	1.4	
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)											
St. CLAIR COUNTY											
East St. Louis	13th & Tudor	8552	0	0	3.5	3.4	3.4	3.0	2.4	2.1	
73 ROCKFORD - JANESVILLE - BELOIT INTERSTATE (IL - WI)											
WINNEBAGO COUNTY											
Rockford	425 E. State	8678	0	0	3.0	2.8	2.6	1.9	1.9	1.8	
75 WEST CENTRAL ILLINOIS INTRASTATE											
SANGAMON COUNTY											
Springfield	6th & Monroe	8542	0	0	4.8	4.3	2.4	1.5	1.5	1.4	

Primary 1-Hour Standard 35 ppm; Primary 8-Hour Standard 9 ppm

Table B9
2006
SULFUR DIOXIDE
(parts per million)

STATION	ADDRESS	NUMBER OF SAMPLES			HIGHEST SAMPLES				ANNUAL ARITHMETIC MEAN
		TOTAL	> 0.5	24-HR > 0.14	3-HR AVG.	24-HR AVG.	1ST	2ND	
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)									
PEORIA COUNTY									
Peoria	Hurlburt & MacArthur	8695	0	0	0.068	0.060	0.029	0.025	0.004
TAZEWELL COUNTY									
Pekin	272 Derby	8512	0	0	0.241	0.229	0.093	0.063	0.004
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)									
COOK COUNTY									
Chicago - CTA	320 S. Franklin	8478	0	0	0.088	0.042	0.018	0.016	0.002
Chicago - Com Ed	780 Lawndale	8625	0	0	0.045	0.042	0.020	0.016	0.003
Chicago - SE Police	103rd & Luella	8668	0	0	0.037	0.028	0.013	0.011	0.002
Cicero	1830 S. 51st Ave.	8702	0	0	0.081	0.061	0.032	0.021	0.004
Lemont	729 Houston	8662	0	0	0.085	0.082	0.026	0.024	0.005
Northbrook	750 Dundee Rd.	7612	0	0	0.048	0.039	0.019	0.017	0.002
WILL COUNTY									
Joliet	Rte 6 & Young Rd.	8445	0	0	0.064	0.056	0.023	0.020	0.004
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)									
MADISON COUNTY									
South Roxana	Michigan Ave.	8651	0	0	0.087	0.077	0.033	0.024	0.004
Wood River	54 N. Walcott	8682	0	0	0.044	0.037	0.014	0.013	0.003
Wood River	1710 Vaughn Rd.	8627	0	0	0.116	0.105	0.041	0.033	0.005
RANDOLPH COUNTY									
Houston	Twp Rd 150 & Twp Rd 45	8614	0	0	0.027	0.022	0.009	0.008	0.002
ST. CLAIR COUNTY									
East St. Louis	13th & Tudor	8345	0	0	0.036	0.031	0.014	0.012	0.002
71 NORTH CENTRAL ILLINOIS INTRASTATE									
LASALLE COUNTY									
Oglesby	508 Portland	8661	0	0	0.303	0.260	0.066	0.058	0.004
74 SOUTHEAST ILLINOIS INTRASTATE									
WABASH COUNTY									
Mount Carmel	Division St	8279	0	0	0.156	0.096	0.035	0.030	0.005
Rural Wabash County	South of SR-1	8187	0	0	0.260	0.145	0.058	0.048	0.004
Primary 24-Hour Standard 0.14 ppm; Primary Annual Standard 0.03 ppm									

Table B9
2006
SULFUR DIOXIDE
(parts per million)

STATION	ADDRESS	NUMBER OF SAMPLES			HIGHEST SAMPLES				ANNUAL ARITHMETIC MEAN	
		TOTAL	3-HR > 0.5	24-HR > 0.14	3-HR AVG. 1ST	2ND	24-HR AVG. 1ST	2ND		
75 WEST CENTRAL ILLINOIS INTRASTATE										
ADAMS COUNTY										
Quincy	732 Hampshire	8627	0	0	0.037	0.037	0.012	0.010	0.001	
MACON COUNTY										
Decatur	2200 N. 22nd St.	8673	0	0	0.042	0.041	0.022	0.017	0.003	
MACOUPIN COUNTY										
Nilwood	Heaton & DuBois	8208	0	0	0.026	0.023	0.008	0.008	0.001	
SANGAMON COUNTY										
Springfield	Sewage Plant	8517	0	0	0.106	0.064	0.025	0.024	0.002	

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

Table B10

**2006
SHORT-TERM TRENDS
SULFUR DIOXIDE**

STATION	ADDRESS	ANNUAL MEANS (ppm)					
		2001	2002	2003	2004	2005	2006
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)							
PEORIA COUNTY							
Peoria	Hurlburt & MacArthur	0.005	0.005	0.004	0.004	0.004	0.004
TAZEWELL COUNTY							
Pekin	272 Derby	0.006	0.005	0.005	0.005	0.005	0.004
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)							
COOK COUNTY							
Chicago -CTA	320 S. Franklin	0.005	0.004	0.003	0.003	0.003	0.002
Chicago – Com Ed	780 Lawndale	-	-	-	0.006	0.004	0.003
Chicago - SE Police	103rd & Luella	0.003	0.002	0.003	0.003	0.003	0.002
Cicero	1830 S. 51st Ave.	0.005	0.004	0.005	0.005	0.005	0.004
Lemont	729 Houston	0.005	0.005	0.004	0.006	0.005	0.005
Northbrook	750 Dundee Rd.	-	-	-	0.002	0.002	0.002
WILL COUNTY							
Joliet	Rte 6 & Young Rd.	0.005	0.004	0.004	0.003	0.004	0.004
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)							
MADISON COUNTY							
South Roxanna	Michigan Ave.	0.007	0.005	0.004	0.005	0.005	0.004
Wood River	54 N. Walcott	0.006	0.004	0.004	0.004	0.004	0.003
Wood River	1710 Vaughn Rd.	0.004	0.005	0.006	0.005	0.005	0.005
RANDOLPH COUNTY							
Houston	Twp Rd 150 & Twp Rd 45	0.002	0.002	0.002	0.002	0.002	0.002
ST. CLAIR COUNTY							
East St. Louis	13th & Tudor	0.007	0.005	0.005	0.003	0.005	0.002
71 NORTH CENTRAL ILLINOIS INTRASTATE							
LASALLA COUNTY							
Oglesby	508 Portland	-	-	+	0.004	0.004	0.004
74 SOUTHEAST ILLINOIS INTRASTATE							
WABASH COUNTY							
Mount Carmel	Division St.	0.005	0.004	0.004	0.004	0.006	0.005
Rural Wabash County	South of SR-1	0.005	0.003	0.003	0.003	0.004	0.004

Primary Annual Standard 0.03 ppm

Table B10**2006
SHORT-TERM TRENDS
SULFUR DIOXIDE**

STATION	ADDRESS	ANNUAL MEANS (ppm)					
		2001	2002	2003	2004	2005	2006
75 WEST CENTRAL ILLINOIS INTRASTATE							
ADAMS COUNTY							
Quincy	732 Hampshire	0.003	0.003	0.002	0.002	0.002	0.001
MACON COUNTY							
Decatur	2200 N. 22nd St.	0.005	0.004	0.003	0.004	0.004	0.003
MACOUPIN COUNTY							
Nilwood	Heaton & DuBois	0.002	0.002	0.002	0.002	0.002	0.001
SANGAMON COUNTY							
Springfield	Sewage Plant	0.003	0.003	0.003	0.003	0.003	0.002
- Station not in operation during year shown							
+ Did not meet minimum statistical selection criteria (See Section B.1)							
Primary Annual Standard 0.03 ppm							

Table B11

**2006
NITROGEN DIOXIDE
(parts per million)**

STATION	ADDRESS	NUMBER OF SAMPLES	HIGHEST SAMPLES				ANNUAL ARITHMETIC MEAN
			1-HOUR		24-HOUR		
			1ST	2ND	1ST	2ND	
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)							
COOK COUNTY							
Chicago - CTA	320 S. Franklin	8425	0.137	0.128	0.056	0.054	0.031
Chicago - Com Ed	7801 Lawndale	8686	0.062	0.060	0.040	0.034	0.018
Chicago - Jardine ¹	1000 E. Ohio	3744	0.072	0.068	0.037	0.036	+
Cicero	1830 S. 51st Ave.	8691	0.083	0.077	0.041	0.040	0.022
Northbrook	750 Dundee Rd.	7595	0.069	0.069	0.044	0.040	0.016
Schiller Park	4743 N. Mannheim	8612	0.084	0.083	0.049	0.045	0.028
WILL COUNTY							
Braidwood ¹	36400 S. Essex Rd.	3953	0.037	0.035	0.018	0.015	+
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)							
ST. CLAIR COUNTY							
East St. Louis	13th & Tudor	8059	0.053	0.052	0.031	0.030	0.015

¹ PAMS monitor operated only during "ozone season"

+ Did not meet minimum statistical selection criteria (See Appendix B.1)

Primary Annual Standard 0.053 ppm

Table B12**2006
SHORT-TERM TRENDS
NITROGEN DIOXIDE**

STATION	ADDRESS	ANNUAL MEANS (ppm)					
		2001	2002	2003	2004	2005	2006
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)							
COOK COUNTY							
Chicago - CTA	320 S. Franklin	0.032	0.032	0.031	0.029	0.030	0.031
Chicago - Com Ed	7801 Lawndale	-	0.022	0.022	0.020	0.020	0.018
Cicero	1820 S. 51st St.	0.028	0.023	0.027	0.024	0.024	0.022
Northbrook	750 Dundee Rd.	0.018	0.017	0.018	0.016	0.017	0.016
Schiller Park	4743 N. Mannheim	0.028	0.030	0.030	0.029	0.028	0.028
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)							
ST. CLAIR COUNTY							
East St. Louis	13th & Tudor	0.019	0.017	0.016	0.016	0.015	0.015

- Station not in operation during year shown
+ Did not meet minimum statistical selection criteria (See Section B.1)

Primary Annual Standard 0.053 ppm

Table B13

**2006
LEAD
(micrograms per cubic meter)**

STATION	ADDRESS	NUMBER OF QUARTERS >1.5	QUARTERLY AVERAGES				ANNUAL MEAN
			1st	2nd	3rd	4th	
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)							
PEORIA COUNTY							
Peoria	613 N.E. Jefferson	0	0.01	0.01	0.01	0.01	0.01
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)							
COOK COUNTY							
Alsip	4500 W. 123rd St.	0	0.01	0.01	0.01	0.01	0.01
Chicago - Cermak	735 W. Harrison	0	0.04	0.04	0.06	0.04	0.04
Chicago - Mayfair	4850 Wilson Ave.	0	0.01	0.02	0.03	0.02	0.02
Chicago - Washington	3535 E. 114th St.	0	0.03	0.03	0.03	0.03	0.03
Maywood	1500 Maybrook Dr.	0	0.02	0.03	0.03	0.02	0.03
Northbrook	750 Dundee Rd.	0	0.01	0.01	0.01	0.01	0.01
Schiller Park	4243 N. Mannheim Rd.	0	0.01	0.01	0.01	0.01	0.01
Summit	60th St. & 74th Ave.	0	0.02	0.02	0.02	0.02	0.02
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)							
MADISON COUNTY							
Granite City	15th & Madison	0	0.07	0.04	0.03	0.14	0.07
Wood River	54 N. Walcott	0	0.02	0.02	0.02	0.02	0.02
ST. CLAIR COUNTY							
East St. Louis	13th St. & Tudor Ave.	0	0.04	0.03	0.03	0.03	0.03
75 WEST CENTRAL ILLINOIS INTRASTATE							
MACOUPIN COUNTY							
Nilwood	Heaton & DuBois	0	0.01	0.01	0.01	0.01	0.01

+ Did not meet minimum statistical selection criteria (See Section B.1)

Primary Quarterly Standard 1.5 ug/m3

Table B14

**2006
FILTER ANALYSIS DATA
(micrograms per cubic meter)**

STATION	ADDRESS	TOTAL SAMPLES	HIGHEST 1st	HIGHEST 2nd	ARITH. MEAN	TOTAL SAMPLES	HIGHEST 1st	HIGHEST 2nd	ARITH. MEAN
<u>ARSENIC</u>					<u>BERYLLIUM</u>				
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)									
PEORIA COUNTY									
Peoria	613 N.E. Jefferson	56	0.003	0.003	0.001	56	0.000	0.000	0.000
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)									
COOK COUNTY									
Alsip	500 W. 123rd. St.	59	0.009	0.006	0.001	NA			
Chicago - Cermak	735 W. Harrison	61	0.006	0.006	0.001	NA			
Chicago - Mayfair	4850 Wilson Ave	58	0.005	0.004	0.001	NA			
Chicago - Washington	3535 E. 114th St.	58	0.007	0.006	0.001	NA			
Maywood	1500 Maybrook Dr.	59	0.008	0.007	0.001	NA			
Northbrook	750 Dundee Rd.	58	0.004	0.003	0.001	58	0.000	0.000	0.000
Schiller Park	4743 N. Mannheim Rd.	59	0.004	0.004	0.001	59	0.000	0.000	0.000
Summit	60th St. & 74th Ave.	58	0.008	0.005	0.001	NA			
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)									
MADISON COUNTY									
Granite City	15th & Madison	55	0.017	0.007	0.002	55	0.000	0.000	0.000
Wood River	54 N. Walcott	60	0.015	0.012	0.001	60	0.000	0.000	0.000
ST. CLAIR COUNTY									
East St. Louis	13th St. & Tudor Ave.	57	0.008	0.006	0.002	57	0.000	0.000	0.000
75 WEST CENTRAL ILLINOIS INTRASTATE									
MACOUPIN COUNTY									
Nilwood	Heaton & DuBois	57	0.005	0.003	0.001	57	0.000	0.000	0.000

Table B14

**2006
FILTER ANALYSIS DATA
(micrograms per cubic meter)**

STATION	ADDRESS	TOTAL SAMPLES	HIGHEST 1st	HIGHEST 2nd	ARITH. MEAN	TOTAL SAMPLES	HIGHEST 1st	HIGHEST 2nd	ARITH. MEAN
<u>CADMIUM</u>					<u>CHROMIUM</u>				
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)									
PEORIA COUNTY									
Peoria	613 N.E. Jefferson	56	0.000	0.000	0.000	56	0.006	0.005	0.000
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)									
COOK COUNTY									
Alsip	4500 W. 123rd. St.	58	0.002	0.002	0.001	58	0.014	0.012	0.004
Chicago - Cermak	735 W. Harrison	60	0.003	0.003	0.002	60	0.025	0.024	0.011
Chicago - Mayfair	4850 Wilson Ave	57	0.003	0.003	0.001	57	0.026	0.022	0.009
Chicago - Washington	3535 E. 114th St.	57	0.004	0.003	0.001	57	0.038	0.032	0.008
Maywood	1500 Maybrook Dr.	58	0.003	0.003	0.001	58	0.041	0.035	0.016
Northbrook	750 Dundee Rd	58	0.000	0.000	0.000	58	0.005	0.004	0.001
Schiller Park	4743 N. Mannheim Rd.	59	0.000	0.000	0.000	59	0.008	0.007	0.002
Summit	60th St. & 74th Ave.	57	0.002	0.002	0.001	57	0.013	0.001	0.005
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)									
MADISON COUNTY									
Granite City	15th & Madison	55	0.004	0.003	0.000	55	0.026	0.019	0.005
Wood River	54 N. Walcott	60	0.005	0.002	0.000	60	0.006	0.005	0.000
ST. CLAIR COUNTY									
East St. Louis	13th St. & Tudor Ave.	57	0.017	0.008	0.001	57	0.009	0.008	0.002
75 WEST CENTRAL ILLINOIS INTRASTATE									
MACOUPIN COUNTY									
Nilwood	Heaton & DuBois	57	0.000	0.000	0.000	57	0.004	0.003	0.000

Table B14

**2006
FILTER ANALYSIS DATA
(micrograms per cubic meter)**

STATION	ADDRESS	IRON			MANGANESE				
		TOTAL SAMPLES	HIGHEST 1st	HIGHEST 2nd	ARITH. MEAN	TOTAL SAMPLES	HIGHEST 1st	HIGHEST 2nd	ARITH. MEAN
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)									
PEORIA COUNTY									
Peoria	613 N.E. Jefferson	56	1.79	1.32	0.49	56	0.083	0.047	0.019
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)									
COOK COUNTY									
Alsip	4500 W. 123rd. St.	58	1.96	1.63	0.56	58	0.366	0.151	0.032
Chicago - Cermak	735 W. Harrison	60	4.74	2.97	1.53	60	0.137	0.135	0.045
Chicago - Mayfair	4850 Wilson Ave	57	2.72	2.57	1.19	57	0.120	0.112	0.044
Chicago - Washington	3535 E. 114th St.	57	5.18	3.63	1.28	57	0.528	0.435	0.135
Maywood	1500 Maybrook Dr.	58	19.85	10.98	2.99	58	0.154	0.145	0.068
Northbrook	750 Dundee Rd.	58	1.39	1.27	0.42	58	0.047	0.032	0.012
Schiller Park	4743 N. Mannheim Rd.	59	2.72	2.35	1.23	59	0.051	0.050	0.028
Summit	60th St. & 74th Ave.	57	1.57	1.48	0.68	57	0.108	0.064	0.024
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)									
MADISON COUNTY									
Granite City	15th & Madison	55	4.64	4.29	1.49	55	0.298	0.271	0.088
Wood River	54 N. Walcott	60	1.94	1.26	0.52	60	0.078	0.073	0.023
ST. CLAIR COUNTY									
East St. Louis	13th St. & Tudor Ave.	57	3.00	2.86	1.04	57	0.195	0.102	0.037
75 WEST CENTRAL ILLINOIS INTRASTATE									
MACOUPIN COUNTY									
Nilwood	Heaton & DuBois	57	0.59	0.59	0.23	57	0.036	0.032	0.001

Table B14

**2006
FILTER ANALYSIS DATA
(micrograms per cubic meter)**

STATION	ADDRESS	TOTAL	HIGHEST		ARITH.	TOTAL	HIGHEST		ARITH.
		SAMPLES	1st	2nd	MEAN	SAMPLES	1st	2nd	MEAN
<u>NICKEL</u>									
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)									
PEORIA COUNTY									
Peoria	613 N.E. Jefferson	56	0.000	0.000	0.000				
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)									
COOK COUNTY									
Alsip	4500 W. 123rd. St.	58	0.025	0.019	0.006				
Chicago - Cermak	735 W. Harrison	60	0.014	0.013	0.008				
Chicago - Mayfair	4850 Wilson Ave	57	0.015	0.014	0.007				
Chicago - Washington	3535 E. 114th St.	57	0.028	0.015	0.007				
Maywood	1500 Maybrook Dr.	58	0.073	0.014	0.011				
Northbrook	750 Dundee Rd.	58	0.0030.000	0.000					
Schiller Park	4743 N. Mannheim Rd.	59	0.005	0.004	0.001				
Summit	60th St. & 74th Ave.	57	0.021	0.015	0.007				
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)									
MADISON COUNTY									
Granite City	15th & Madison	55	0.006	0.005	0.001				
Wood River	54 N. Walcott	60	0.027	0.016	0.001				
ST. CLAIR COUNTY									
East St. Louis	13th St. & Tudor Ave.	57	0.005	0.005	0.001				
75 WEST CENTRAL ILLINOIS INTRASTATE									
MACOUPIN COUNTY									
Nilwood	Heaton & DuBois	57	0.005	0.000	0.000				

Table B14

**2006
FILTER ANALYSIS DATA
(micrograms per cubic meter)**

STATION	ADDRESS	TOTAL SAMPLES	HIGHEST 1st	HIGHEST 2nd	ARITH. MEAN	TOTAL SAMPLES	HIGHEST 1st	HIGHEST 2nd	ARITH. MEAN
<u>NITRATES</u>					<u>SULFATES</u>				
65 BURLINGTON - KEOKUK INTERSTATE (IA - IL)									
PEORIA COUNTY									
Peoria	613 N.E. Jefferson	56	14.2	11.4	4.2	56	13.7	12.5	6.7
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)									
COOK COUNTY									
Alsip	4500 W. 123rd. St.	59	11.4	10.9	4.2	59	12.8	12.6	6.5
Chicago - Cermak	735 W. Harrison	61	12.6	12.2	4.5	61	19.7	14.5	7.4
Chicago - Mayfair	4850 Wilson Ave	58	14.5	13.2	4.9	58	15.7	15.6	7.3
Chicago - Washington	3535 E. 114th St.	58	12.8	11.6	4.5	58	14.9	13.5	7.4
Maywood	1500 Maybrook Dr.	59	11.2	10.2	3.8	59	16.2	14.1	7.0
Northbrook	750 Dundee Rd.	58	13.0	12.1	4.5	58	15.9	15.2	6.7
Schiller Park	4743 N. Mannheim Rd.	59	12.0	11.5	4.5	59	18.2	15.4	7.6
Summit	60th St. & 74th Ave.	58	11.8	10.9	4.3	58	15.0	13.7	6.7
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)									
MADISON COUNTY									
Granite City	15th & Madison	55	14.7	13.6	4.2	55	14.7	14.5	8.6
Wood River	54 N. Walcott	60	13.5	10.9	4.0	60	13.9	13.5	7.6
ST. CLAIR COUNTY									
East St. Louis	13th St. & Tudor Ave.	57	23.1	14.3	5.0	57	20.2	17.8	9.2
75 WEST CENTRAL ILLINOIS INTRASTATE									
MACOUPIN COUNTY									
Nilwood	Heaton & DuBois	57	14.9	11.0	4.2	57	17.2	12.7	6.7

Table B15

**2006
(JUNE - AUGUST)**

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

STATION	ADDRESS	HIGHEST SAMPLES (ppbc)				JUN - AUG AVERAGE
		1ST	2ND	3RD	4TH	
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)						
COOK COUNTY						
Chicago	1000 E. Ohio					
COMPOUNDS						
Ethane		7.1	6.9	6.7	6.5	3.8
Ethylene		2.4	2.3	2.2	1.9	0.7
Propane		6.2	5.8	5.3	5.2	2.6
Propylene		2.4	2.1	1.8	1.7	0.7
Acetylene		1.7	1.3	1.2	1.1	0.4
N - Butane		3.8	3.8	3.7	3.4	1.6
Isobutane		3.6	2.2	2.2	2.1	0.9
Trans - 2 - Butene		2.6	2.6	2.4	2.4	1.5
Cis - 2 - Butene		0.7	0.7	0.6	0.6	0.4
N - Pentane		8.6	5.2	3.9	3.7	1.6
Isopentane		14.3	7.6	7.2	6.5	2.7
1 - Pentene		0.1	0.1	0.1	0.1	0.0
Trans - 2 - Pentene		0.2	0.2	0.2	0.2	0.0
Cis - 2 - Pentene		0.1	0.1	0.1	0.0	0.0
3 - Methylpentane		0.6	0.5	0.5	0.4	0.1
N - Hexane		2.3	1.7	1.7	1.6	0.6
N - Heptane		0.8	0.8	0.7	0.6	0.2
N - Octane		0.5	0.3	0.3	0.3	0.1
N - Nonane		0.9	0.7	0.7	0.5	0.2
N - Decane		1.0	1.0	1.0	0.9	0.3
Cyclopentane		0.4	0.3	0.3	0.3	0.1
Isoprene		1.1	0.8	0.6	0.4	0.1
2,2 - Dimethylbutane		0.4	0.2	0.2	0.2	0.0
2,4 - Dimethylpentane		0.9	0.6	0.5	0.5	0.1
Cyclohexane		0.3	0.3	0.3	0.2	0.0
3 - Methylhexane		1.1	0.9	0.8	0.8	0.3
2,2,4 - Trimethylpentane		4.7	3.4	3.1	2.8	1.0
2,3,4 - Trimethylpentane		1.6	1.1	1.0	0.9	0.3
3 - Methylheptane		0.3	0.2	0.2	0.1	0.0
Methylcyclohexane		0.6	0.6	0.5	0.5	0.1
Methylcyclopentane		1.0	0.9	0.8	0.8	0.2
2 - Methylhexane		0.9	0.7	0.6	0.6	0.2
1 - Butene		0.4	0.4	0.3	0.3	0.1
2,3 - Dimethylbutane		1.0	0.8	0.8	0.7	0.2
2 - Methylpentane		2.5	2.3	1.9	1.8	0.7
2,3 - Dimethylpentane		1.7	1.1	1.0	1.0	0.3
N - Undecane		0.9	0.9	0.7	0.7	0.3

Table B15

**2006
(JUNE - AUGUST)**

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

STATION	ADDRESS	HIGHEST SAMPLES (ppbc)				JUN - AUG AVERAGE	
		1ST	2ND	3RD	4TH		
COMPOUNDS							
		2 - Methylheptane	0.2	0.1	0.1	0.1	0.0
		M/P Xylene	5.4	3.1	2.8	2.6	0.9
		Benzene	2.3	2.0	1.7	1.7	0.7
		Toluene	5.5	5.1	4.8	4.5	1.9
		Ethylbenzene	1.9	0.9	0.8	0.8	0.2
		O - Xylene	1.0	1.0	0.9	0.9	0.3
		1,3,5 - Trimethylbenzene	0.2	0.2	0.2	0.2	0.0
		1,2,4 - Trimethylbenzene	0.7	0.7	0.6	0.6	0.2
		N - Propylbenzene	0.1	0.1	0.1	0.1	0.0
		Isopropylbenzene	0.2	0.2	0.2	0.1	0.0
		O-Ethyltoluene	0.2	0.1	0.1	0.1	0.0
		M-Ethyltoluene	0.4	0.4	0.4	0.4	0.1
		P-Ethyltoluene	0.1	0.1	0.1	0.1	0.0
		M-Diethylbenzene	0.1	0.0	0.0	0.0	0.0
		P-Diethylbenzene	0.1	0.1	0.1	0.1	0.0
		Styrene	0.2	0.1	0.1	0.0	0.0
		1,2,3 - Trimethylbenzene	0.4	0.4	0.3	0.3	0.1
Northbrook	750 Dundee Rd.						
COMPOUNDS							
		Ethane	8.2	7.2	7.1	6.8	4.2
		Ethylene	1.7	1.2	1.1	1.1	0.4
		Propane	9.1	6.2	5.5	5.4	2.8
		Propylene	1.7	1.3	1.2	1.2	0.5
		Acetylene	0.5	0.3	0.3	0.3	0.1
		N - Butane	5.5	4.0	3.8	3.3	1.7
		Isobutane	2.1	2.0	1.9	1.9	0.8
		Trans - 2 - Butene	0.2	0.1	0.1	0.1	0.0
		Cis - 2 - Butene	0.1	0.1	0.0	0.0	0.0
		N - Pentane	6.4	4.9	4.3	3.9	1.7
		Isopentane	12.2	8.4	7.9	7.2	3.1
		1 - Pentene	0.3	0.2	0.2	0.1	0.0
		Trans - 2 - Pentene	0.7	0.5	0.4	0.4	0.1
		Cis - 2 - Pentene	0.4	0.3	0.3	0.2	0.0
		3 - Methylpentane	3.2	2.3	1.7	1.5	0.8
		N - Hexane	4.3	2.2	1.8	1.6	0.7
		N - Heptane	2.2	1.0	0.8	0.8	0.3
		N - Octane	1.4	0.8	0.4	0.3	0.1
		N - Nonane	0.5	0.4	0.3	0.3	0.1
		N - Decane	0.4	0.3	0.3	0.3	0.1

Table B15

**2006
(JUNE - AUGUST)**

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

STATION	ADDRESS	HIGHEST SAMPLES (ppbc)				JUN - AUG AVERAGE
		1ST	2ND	3RD	4TH	
COMPOUNDS						
			24-HOUR			
Cyclopentane		0.5	0.5	0.3	0.3	0.1
Isoprene		8.8	7.4	5.7	5.0	1.9
2,2 - Dimethylbutane		0.6	0.5	0.5	0.3	0.1
2,4 - Dimethylpentane		2.4	1.1	0.8	0.8	0.2
Cyclohexane		0.6	0.4	0.2	0.2	0.1
3 - Methylhexane		2.4	1.3	1.0	0.9	0.3
2,2,4 - Trimethylpentane		9.1	4.7	3.5	3.2	1.3
2,3,4 - Trimethylpentane		2.7	1.4	1.0	1.0	0.4
3 - Methylheptane		0.8	0.4	0.3	0.3	0.1
Methylcyclohexane		1.1	0.6	0.5	0.5	0.2
Methylcyclopentane		1.5	1.3	0.9	0.9	0.3
2 - Methylhexane		1.9	1.0	0.8	0.7	0.2
1 - Butene		0.3	0.1	0.1	0.1	0.0
2,3 - Dimethylbutane		2.0	1.3	1.1	1.1	0.4
2 - Methylpentane		4.8	3.1	2.8	1.7	0.5
2,3 - Dimethylpentane		2.4	1.7	1.3	1.2	0.4
N - Undecane		0.6	0.2	0.2	0.1	0.0
2 - Methylheptane		0.4	0.2	0.2	0.2	0.0
M/P Xylene		4.2	2.3	1.9	1.9	0.8
Benzene		2.6	1.6	1.4	1.3	0.6
Toluene		11.8	5.6	5.4	4.7	2.2
Ethylbenzene		1.3	0.8	0.6	0.6	0.3
O - Xylene		1.5	0.9	0.7	0.7	0.3
1,3,5 - Trimethylbenzene		0.4	0.4	0.3	0.3	0.1
1,2,4 - Trimethylbenzene		1.3	0.9	0.6	0.6	0.2
N - Propylbenzene		0.3	0.2	0.1	0.1	0.0
Isopropylbenzene		0.1	0.1	0.1	0.0	0.0
O-Ethyltoluene		0.3	0.2	0.2	0.1	0.0
M-Ethyltoluene		2.9	2.8	1.4	1.2	0.3
P-Ethyltoluene		0.2	0.2	0.1	0.1	0.0
M-Diethylbenzene		0.2	0.2	0.2	0.1	0.0
P-Diethylbenzene		0.2	0.1	0.1	0.1	0.0
Styrene		0.4	0.2	0.2	0.2	0.0
1,2,3 Trimethylbenzene		6.3	5.1	3.5	2.2	0.3
Formaldehyde ¹		1.2	1.2	1.1	1.0	0.5

¹ Values in ppb (volume)

Table B16

2006

TOXIC COMPOUNDS¹
(parts per billion volume)

STATION	ADDRESS	HIGHEST SAMPLES (ppbv)				AVERAGE	
		1ST	2ND	3RD	4TH		
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)							
COOK COUNTY							
Northbrook	750 Dundee Rd.						
COMPOUNDS							
		1,3 Butadiene	0.07	0.06	0.05	0.05	0.02
		Methylene Chloride	0.44	0.36	0.35	0.25	0.12
		Chlorform	0.23	0.22	0.22	0.15	0.07
		Carbon Tetrachloride	0.19	0.17	0.17	0.17	0.11
		Tetrachloroethylene	0.36	0.35	0.30	0.19	0.05
		Trichlorethylene	0.16	0.14	0.12	0.10	0.02
		1,2 Dichloropropane	0.00	0.00	0.00	0.00	0.00
		Vinyl Chloride	0.01	0.00	0.00	0.00	0.00
		Benzene	2.80	2.30	2.00	1.90	1.00
		Toluene	26.4	6.50	6.30	5.20	2.48
		Formaldehyde	3.60	2.00	1.80	1.80	0.95
		Acetaldehyde	1.20	1.20	0.90	0.90	0.52
		Mercury ²	7.57	5.99	5.57	4.99	1.96
		Chromium VI ²	0.24	0.12	0.11	0.11	0.04
Schiller Park	4743 Mannheim Rd.						
COMPOUNDS							
		1,3 Butadiene	0.16	0.15	0.13	0.13	0.07
		Methylene Chloride	1.00	0.50	0.39	0.32	0.14
		Chlorform	0.35	0.04	0.04	0.04	0.02
		Carbon Tetrachloride	0.21	0.18	0.17	0.17	0.11
		Tetrachloroethylene	0.55	0.49	0.43	0.37	0.11
		Trichlorethylene	0.58	0.39	0.29	0.26	0.08
		1,2 Dichloropropane	0.00	0.00	0.00	0.00	0.00
		Vinyl Chloride	0.00	0.00	0.00	0.00	0.00
		Benzene	0.82	0.66	0.58	0.57	0.29
		Toluene	1.36	1.24	1.03	0.93	0.43
		Formaldehyde	10.40	10.20	9.90	8.50	+
		Acetaldehyde	4.10	2.80	2.60	2.50	1.26

¹ - Toxic metals data (As,Be,Cd,Cr,Mn,Ni) summarized in Section B14 Filter analysis Data

² - Units of nanograms per cubic meter

Table B17

2006

**PM_{2.5} SPECIATION
(micrograms per cubic meter)**

STATION	ADDRESS	HIGHEST SAMPLES (ug/m3)				ANNUAL AVERAGE
		1ST	2ND	3RD	4TH	
67 METROPOLITAN CHICAGO INTERSTATE (IL - IN)						
COOK COUNTY						
Chicago - Com Ed	7801 Lawndale					
MAJOR CONSTITUENTS						
Inorganic Elements		1.6	1.5	1.2	1.1	0.4
Ammonium		5.5	5.4	4.6	4.6	1.7
Nitrate		9.1	8.5	8.4	7.8	2.5
Sulfate		11.8	10.9	9.6	9.3	3.0
Elemental Carbon		1.7	1.6	1.6	1.5	0.7
Organic Carbon		8.0	7.0	6.9	6.6	4.0
Chicago - Springfield	1745 N. Springfield Ave.					
MAJOR CONSTITUENTS						
Inorganic Elements		1.0	1.0	0.9	0.9	0.6
Ammonium		5.8	4.9	4.2	4.1	1.7
Nitrate		9.3	8.4	8.4	7.8	2.8
Sulfate		8.5	7.0	6.4	6.2	2.8
Elemental Carbon		1.6	1.4	1.4	1.4	0.7
Organic Carbon		9.9	8.1	7.3	6.3	4.3
Northbrook	750 Dundee Rd.					
MAJOR CONSTITUENTS						
Inorganic Elements		0.8	0.7	0.7	0.6	0.3
Ammonium		4.6	4.2	4.0	3.6	1.4
Nitrate		8.4	7.6	7.5	7.2	2.1
Sulfate		7.5	6.8	6.3	5.8	2.6
Elemental Carbon		1.6	1.5	1.2	1.2	0.5
Organic Carbon		9.8	6.5	5.6	5.6	3.2
DuPAGE COUNTY						
Naperville	400 S. Eagle St.					
MAJOR CONSTITUENTS						
Inorganic Elements		2.2	1.9	1.5	1.5	0.4
Ammonium		4.6	4.4	4.3	4.0	1.6
Nitrate		8.3	7.2	7.2	6.8	2.6
Sulfate		9.8	7.4	6.7	6.3	2.8
Elemental Carbon		1.2	1.1	1.1	1.0	0.5
Organic Carbon		7.1	6.5	6.3	6.2	3.5

Table B17

2006

**PM_{2.5} SPECIATION
(micrograms per cubic meter)**

STATION	ADDRESS	HIGHEST SAMPLES (ug/m3)				ANNUAL AVERAGE
		1ST	2ND	3RD	4TH	
70 METROPOLITAN ST. LOUIS INTERSTATE (IL - MO)						
MADISON COUNTY						
Alton	1700 Annex St.					
MAJOR CONSTITUENTS						
Inorganic Elements		1.8	1.4	1.3	1.3	0.4
Ammonium		4.6	4.4	4.1	3.7	1.7
Nitrate		10.5	8.1	7.1	6.6	2.1
Sulfate		9.7	8.3	7.1	6.5	3.3
Elemental Carbon		1.3	1.2	0.9	0.9	0.5
Organic Carbon		6.8	6.3	5.6	5.6	3.5
75 WEST CENTRAL ILLINOIS INTRASTATE						
MACON COUNTY						
Decatur	2200 N. 22nd St.					
MAJOR CONSTITUENTS						
Inorganic Elements		1.0	1.0	0.9	0.9	0.4
Ammonium		5.3	4.7	3.9	3.8	1.7
Nitrate		11.5	9.2	8.9	7.7	2.4
Sulfate		9.2	8.4	6.7	6.1	2.9
Elemental Carbon		0.9	0.9	0.8	0.8	0.4
Organic Carbon		8.3	5.9	5.5	5.5	3.2

APPENDIX C
POINT SOURCE EMISSION INVENTORY SUMMARY TABLES

Table C1

Carbon Monoxide Point Source Emission Distribution (Tons/Year)

Category	2002	2003	2004	2005	2006
External Fuel Combustion					
Electric Generation	12,939.3	14,120.6	13,247.4	14,630.6	14,803.8
Industrial	10,833.3	11,330.7	10,276.5	8,968.0	7,718.8
Commercial/Institutional	2,713.8	2,667.7	2,822.1	2,448.2	2,345.6
Space Heating	64.7	54.5	48.4	32.9	22.9
Internal Fuel Combustion					
Electric Generation	2,302.7	5,622.9	5,356.3	2,698.5	2,736.4
Industrial	4,653.2	5,642.9	4,818.2	4,805.1	5,060.1
Commercial/Institutional	629.4	451.5	652.2	588.1	637.5
Engine Testing	886.4	811.7	589.5	278.3	470.1
Fugitive Emissions	0.5	0.5	0.0	0.0	0.0
Industrial Processes					
Chemical Manufacturing	12,618.8	4,172.7	3,514.1	2,061.3	3,186.9
Food/Agriculture	1,063.5	1,093.9	1,329.0	8,454.2	7,465.5
Primary Metal Production	23,021.0	13,969.3	10,028.6	14,508.4	20,861.6
Secondary Metal Production	3,198.0	3,154.6	1,729.8	2,588.5	2,443.3
Mineral Products	9,158.7	9,835.7	9,178.8	8,453.9	9,686.9
Petroleum Industry	5,363.6	5,319.6	7,812.1	7,011.2	6,094.2
Paper and Wood Products	26.6	26.6	33.4	10.2	10.2
Rubber and Plastic Products	127.2	18.7	21.0	24.5	19.2
Fabricated Metal Products	1,307.3	1,380.6	1,527.4	1,512.6	1,568.3
Oil and Gas Production	92.2	332.3	413.1	268.8	258.2
Miscellaneous Machinery	3.7	3.7	0.1	0.0	0.0
Electrical Equipment	2.7	2.3	2.3	2.3	2.2
Transportation Equipment	1.2	5.8	5.8	5.8	6.1
Health Services	28.4	102.9	169.8	176.9	262.7
Textile Products	0.1	0.0	0.0	0.0	0.0
In-Process Fuel Use	1,258.4	1,267.9	1,102.1	1,004.2	1,176.6
Miscellaneous Manufacturing	361.0	134.3	88.1	91.6	98.8
Organic Solvent Emissions					
Organic Solvent Use	0.0	0.0	0.0	0.0	0.0
Surface Coating Operations	179.2	200.8	230.6	221.0	191.6
Petroleum Product Storage	3.1	3.3	3.3	0.0	0.0
Bulk Terminals/Plants	11.8	10.7	27.8	45.1	19.3
Printing/Publishing	63.5	48.2	26.2	43.0	34.5
Petroleum Marketing/Transport	0.0	0.0	0.0	0.0	13.4
Organic Chemical Storage (large)	0.0	0.0	0.0	0.4	0.9
Organic Chemical Transportation	0.1	0.1	0.0	0.0	0.0
Organic Solvent Evaporation	215.1	101.8	119.3	131.9	37.0
Solid Waste Disposal					
Government	2,036.7	3,623.3	3,383.0	1,757.7	1,688.8
Commercial/Institutional	309.7	284.7	259.4	157.5	119.1
Industrial	2,465.0	2,549.3	1,641.5	660.4	646.1
Site Remediation	10.4	20.2	19.3	26.2	25.9

Table C1

Historical Carbon Monoxide Point Source Emission Distribution (Tons/Year)

Category	2002	2003	2004	2005	2006
MACT Processes					
Food and Agriculture Processes	0.0	0.0	0.0	2.0	2.0
Vinyl Based Resins	0.0	0.0	0.6	0.6	0.7
Totals	99,173.4	88,366.6	80,478.6	83,671.4	89,716.7

Table C2

Nitrogen Oxides Point Source Emission Distribution (Tons/Year)

Category	2002	2003	2004	2005	2006
External Fuel Combustion					
Electric Generation	183,590.6	170,471.8	144,454.8	143,485.1	128,666.9
Industrial	35,474.1	34,001.0	27,510.7	21,717.3	19,042.4
Commercial/Institutional	6,074.8	5,645.5	3,873.6	3,462.6	3,296.5
Space Heating	319.2	276.5	248.5	165.4	113.2
Internal Fuel Combustion					
Electric Generation	3,932.9	7,294.4	6,997.0	4,886.0	4,616.3
Industrial	21,551.8	21,536.9	18,329.5	22,009.7	23,109.0
Commercial/Institutional	2,519.0	692.1	1,047.8	867.7	913.1
Engine Testing	1,152.9	1,098.3	1,400.9	448.5	853.0
Fugitive Emissions	2.4	2.4	0.0	0.0	0.0
Industrial Processes					
Chemical Manufacturing	1,362.1	1,575.5	2,204.2	1,277.3	1,262.8
Food/Agriculture	924.8	984.4	1,245.4	1,733.8	1,593.3
Primary Metal Production	3,620.2	2,250.5	1,897.9	3,040.7	1,413.3
Secondary Metal Production	1,853.9	2,359.6	1,156.8	1,011.0	1,036.6
Mineral Products	15,278.5	18,755.3	17,615.3	15,555.4	15,535.3
Petroleum Industry	15,737.0	14,794.2	14,059.6	12,578.9	11,330.6
Paper and Wood Products	31.0	30.3	30.8	4.3	4.3
Rubber and Plastic Products	134.0	26.3	29.8	32.7	28.5
Fabricated Metal Products	414.7	471.0	499.4	435.1	434.9
Oil and Gas Production	270.1	834.1	644.8	929.7	862.0
Miscellaneous Machinery	5.1	5.1	3.8	2.9	2.9
Electrical Equipment	5.0	4.7	4.7	4.7	4.6
Transportation Equipment	1.9	0.2	0.2	0.2	0.2
Health Services	1.6	5.5	7.5	6.9	7.1
Textile Products	1.4	0.9	0.9	0.9	0.9
In-Process Fuel Use	2,665.2	2,439.7	1,597.6	2,071.9	3,297.6
Miscellaneous Manufacturing	278.1	62.5	45.4	44.1	47.8
Organic Solvent Emissions					
Organic Solvent Use	1.5	1.4	1.4	0.0	0.0
Surface Coating Operations	866.1	945.5	1.3	778.5	493.6
Petroleum Product Storage	6.7	6.1	957.0	0.0	0.0
Bulk Terminals/Plants	12.3	22.0	6.1	37.5	24.4
Printing/Publishing	180.6	123.8	28.9	71.0	50.8
Petroleum Marketing/Transport	2.3	2.3	66.2	2.3	6.6
Organic Chemical Storage (large)	0.4	0.4	2.3	0.0	0.1
Organic Chemical Transportation	0.0	0.0	0.4	1.0	1.0
Organic Solvent Evaporation	343.6	230.2	233.6	239.5	25.4

Table C2**Nitrogen Oxides Point Source Emission Distribution (Tons/Year)**

Category	2002	2003	2004	2005	2006
Solid Waste Disposal					
Government	1,248.2	2,015.1	1,417.4	777.2	794.8
Commercial/Institutional	98.3	105.9	110.4	44.2	34.0
Industrial	669.2	826.0	486.2	259.8	253.4
Site Remediation	7.0	23.9	22.8	35.7	35.4
MACT Processes					
Food and Agriculture Processes	0.0	0.0	0.0	0.0	1.6
Vinyl Based Resins	0.0	0.0	4.1	3.4	3.5
Totals	301,215.7	289,921.3	248,245.3	238,026.1	219,199.7

Table C3

Particulate Matter Point Source Emission Distribution (Tons/Year)

Category	2002	2003	2004	2005	2006
External Fuel Combustion					
Electric Generation	16,273.9	15,336.4	15,167.5	16,163.6	15,611.6
Industrial	2,980.2	2,938.6	2,961.6	3,513.7	3,287.1
Commercial/Institutional	773.7	746.6	684.4	362.8	330.5
Space Heating	20.0	10.8	9.7	5.2	3.8
Internal Fuel Combustion					
Electric Generation	188.2	634.4	784.5	223.9	315.6
Industrial	245.3	509.0	314.5	282.1	310.2
Commercial/Institutional	41.7	28.8	133.5	46.9	44.9
Engine Testing	62.0	46.6	324.1	53.6	23.4
Fugitive Emissions	0.0	0.1	0.0	0.0	0.0
Industrial Processes					
Chemical Manufacturing	3,253.8	2,876.1	3,419.6	2,309.3	1,867.4
Food/Agriculture	18,919.3	16,373.6	17,280.1	17,917.2	15,961.0
Primary Metal Production	3,897.2	2,942.3	2,690.3	2,380.0	2,043.1
Secondary Metal Production	4,728.6	4,788.1	2,989.1	3,047.3	2,162.0
Mineral Products	19,984.3	22,432.0	21,164.3	18,627.3	16,326.5
Petroleum Industry	2,442.1	2,540.6	2,924.8	2,473.3	2,500.9
Paper and Wood Products	327.5	306.9	282.3	395.8	386.0
Rubber and Plastic Products	580.4	521.2	522.5	496.5	374.0
Fabricated Metal Products	943.0	861.7	756.6	631.2	597.2
Oil and Gas Production	11.9	18.4	11.2	14.0	10.0
Building Construction	1.5	1.9	1.8	1.5	0.0
Miscellaneous Machinery	91.2	69.6	61.7	65.6	68.3
Electrical Equipment	24.3	21.4	14.8	19.7	19.3
Transportation Equipment	54.7	73.2	73.6	82.1	73.6
Health Services	31.4	858.0	88.0	90.9	126.2
Leather and Leather Products	4.3	4.3	4.2	4.2	4.4
Textile Products	12.4	2.9	12.8	12.8	12.8
Printing/Publishing (typesetting)	0.3	1.9	1.8	0.0	0.0
Process Cooling	342.3	352.1	416.9	451.9	329.8
In-Process Fuel Use	341.8	356.0	260.0	266.3	300.5
Miscellaneous Manufacturing	142.1	118.0	104.7	91.5	129.5
Organic Solvent Emissions					
Organic Solvent Use	20.0	16.1	16.3	0.0	0.1
Surface Coating Operations	642.0	744.7	635.6	416.9	407.6
Petroleum Product Storage	36.3	31.7	34.9	0.0	0.0
Bulk Terminals/Plants	3.2	3.0	0.0	1.3	1.3
Printing/Publishing	68.3	62.9	75.0	49.4	44.2
Petroleum Marketing/Transport	10.4	13.7	13.6	7.4	5.8
Organic Chemical Storage (large)	17.6	16.7	14.8	16.4	8.6
Organic Chemical Transportation	0.1	0.1	0.0	0.0	0.0
Dry Cleaning (petroleum based)	0.0	0.0	1.9	0.0	0.0
Organic Solvent Evaporation	109.9	74.1	64.8	23.6	19.7

Table C3**Particulate Matter Point Source Emission Distribution (Tons/Year)**

Category	2002	2003	2004	2005	2006
Solid Waste Disposal					
Government	331.0	1,364.0	1,623.4	1,153.1	1,101.3
Commercial/Institutional	38.0	106.7	79.0	59.0	43.2
Industrial	386.9	331.6	242.2	220.3	209.9
Site Remediation	26.6	84.6	83.6	83.2	75.8
MACT Processes					
Food and Agriculture Processes	0.0	0.0	0.0	0.1	0.1
Styrene or Methacrylate Based Resins	5.5	5.5	5.6	0.5	0.5
Cellulose Based Resins	0.2	0.2	0.1	0.1	0.0
Alkyd Resin Production	3.4	3.9	4.2	4.3	4.3
Vinyl Based Resins	240.0	243.1	397.5	172.5	224.1
Miscellaneous Polymers	3.2	3.4	25.5	28.4	11.5
Fibers Production	0.2	0.0	0.0	0.0	0.0
Consumer Product Mfg Facilities	0.3	0.3	0.2	0.2	0.2
Paint Stripper Use	0.9	0.9	0.8	0.8	0.8
Phthalate Plasticizers Production	0.0	0.0	4.6	4.6	3.5
Totals	79,140.9	78,078.4	76,787.1	72,274.6	65,384.1

Table C4

Sulfur Dioxide Point Source Emission Distribution (Tons/Year)

Category	2002	2003	2004	2005	2006
External Fuel Combustion					
Electric Generation	359,266.7	348,602.0	367,821.2	371,925.7	336,631.3
Industrial	59,419.5	54,386.4	41,186.7	57,281.9	56,161.8
Commercial/Institutional	11,303.3	9,917.7	8,739.7	5,357.7	5,761.1
Space Heating	42.4	2.4	2.1	1.7	1.3
Internal Fuel Combustion					
Electric Generation	188.2	633.7	571.2	189.5	167.5
Industrial	245.3	415.2	233.8	159.5	151.0
Commercial/Institutional	41.7	29.9	47.2	65.8	58.9
Engine Testing	62.0	62.7	180.9	30.9	37.5
Industrial Processes					
Chemical Manufacturing	13,946.0	12,892.9	12,698.2	12,819.1	16,870.3
Food/Agriculture	1,648.1	1,695.7	2,249.3	1,855.7	2,575.5
Primary Metal Production	6,342.7	3,243.0	2,442.7	3,954.1	1,563.5
Secondary Metal Production	113.4	2,235.8	585.0	152.8	142.0
Mineral Products	13,918.1	14,046.1	14,022.8	13,913.7	18,033.2
Petroleum Industry	62,241.0	60,558.6	53,085.8	51,990.4	43,914.5
Paper and Wood Products	0.2	0.2	0.6	0.0	0.0
Rubber and Plastic Products	0.7	0.8	0.8	5.1	4.5
Fabricated Metal Products	20.4	21.2	26.6	18.2	20.1
Oil and Gas Production	292.3	651.8	651.6	598.1	563.2
Miscellaneous Machinery	2.3	2.3	0.0	0.0	0.0
Electrical Equipment	2.0	0.9	0.5	0.5	0.5
Transportation Equipment	0.0	0.1	0.1	0.1	0.1
Health Services	0.7	7.3	8.7	7.5	7.6
Leather and Leather Products	7.6	0.0	0.0	0.0	0.0
Process Cooling	0.0	0.0	2.0	38.0	38.0
In-Process Fuel Use	707.8	1,006.0	949.2	1,484.7	4,027.9
Miscellaneous Manufacturing	97.1	84.3	63.1	73.8	60.7
Organic Solvent Emissions					
Surface Coating Operations	49.2	23.8	23.3	14.4	0.0
Petroleum Product Storage	31.4	43.9	43.9	0.0	3.5
Printing/Publishing	0.2	0.5	0.2	0.2	0.2
Organic Chemical Transportation	1.1	1.1	1.0	0.0	0.0
Organic Solvent Evaporation	61.7	39.6	30.4	3.1	3.1

Table C4**Sulfur Dioxide Point Source Emission Distribution (Tons/Year)**

Category	2002	2003	2004	2005	2006
Solid Waste Disposal					
Government	331.0	640.8	372.8	415.8	427.1
Commercial/Institutional	38.0	45.4	37.0	11.6	10.9
Industrial	386.9	528.6	503.8	155.1	199.4
Site Remediation	26.6	27.1	5.6	5.5	5.2
MACT Processes					
Food and Agriculture Processes	472.6	472.6	541.6	145.0	145.0
Miscellaneous Processes	0.0	0.0	11.0	0.3	0.2
Totals	531,342.7	512,320.6	507,142.1	522,677.3	487,588.3

Table C5

Volatile Organic Material Point Source Emission Distribution (Tons/Year)

Category	2002	2003	2004	2005	2006
External Fuel Combustion					
Electric Generation	1,342.2	1,461.3	1,413.5	1,517.4	1,453.8
Industrial	854.1	814.4	745.4	553.1	448.7
Commercial/Institutional	380.8	344.9	159.8	143.5	133.2
Space Heating	13.4	14.8	13.1	9.2	5.6
Internal Fuel Combustion					
Electric Generation	292.9	639.8	468.5	740.4	644.8
Industrial	1,022.2	1,066.1	954.9	979.4	1,025.0
Commercial/Institutional	122.1	78.1	104.9	90.5	88.2
Engine Testing	236.9	232.5	216.7	66.4	73.6
Fugitive Emissions	19.6	0.3	0.1	0.0	0.0
Industrial Processes					
Chemical Manufacturing	12,698.4	12,405.2	15,798.3	16,942.5	16,204.1
Food/Agriculture	10,503.8	10,885.9	11,020.4	14,608.5	13,800.3
Primary Metal Production	674.2	645.3	559.1	648.2	680.0
Secondary Metal Production	1,914.9	1,829.4	1,076.0	1,232.0	1,245.9
Mineral Products	1,694.3	2,543.6	2,225.1	2,075.0	1,919.3
Petroleum Industry	5,197.5	4,292.0	3,029.1	1,755.3	1,524.4
Paper and Wood Products	177.0	240.1	269.9	192.4	189.5
Rubber and Plastic Products	5,061.1	4,607.2	4,322.0	2,710.9	2,369.2
Fabricated Metal Products	1,545.4	1,290.8	1,388.5	1,131.9	1,010.4
Oil and Gas Production	252.5	465.7	273.6	382.1	351.3
Miscellaneous Machinery	28.7	25.8	23.8	84.2	80.0
Electrical Equipment	185.7	142.2	102.6	103.0	106.9
Transportation Equipment	40.4	267.8	267.5	331.3	330.9
Health Services	81.2	70.6	52.0	54.4	53.8
Leather and Leather Products	108.6	107.0	105.8	106.5	88.2
Textile Products	4.9	7.3	6.2	6.5	6.5
Process Cooling	11.6	12.6	117.6	238.0	227.4
In-Process Fuel Use	180.4	141.5	221.3	145.2	124.3
Miscellaneous Manufacturing	287.5	261.7	213.8	306.1	298.5
Organic Solvent Emissions					
Organic Solvent Use	1,403.8	1,371.0	1,141.8	752.5	697.7
Surface Coating Operations	17,979.3	16,512.2	13,480.0	10,435.0	9,961.1
Petroleum Product Storage	5,058.6	4,684.1	4,973.4	3,925.3	3,635.6
Bulk Terminals/Plants	2,402.2	2,967.0	2,799.1	1,760.4	1,455.6
Printing/Publishing	9,012.0	10,062.2	8,296.9	5,915.1	5,449.9
Petroleum Marketing/Transport	1,519.7	1,413.0	1,565.6	800.3	526.4
Organic Chemical Storage (large)	1,222.3	1,042.7	1,188.5	1,289.6	1,230.9
Organic Chemical Transportation	38.6	29.0	84.7	81.3	73.4
Dry Cleaning (petroleum based)	457.7	550.9	585.6	555.3	564.1
Organic Chemical Storage (small)	2.9	1.0	0.9	0.0	0.0
Organic Solvent Evaporation	3,537.6	3,147.4	1,011.8	608.7	539.8

Table C5**Volatile Organic Material Point Source Emission Distribution (Tons/Year)**

Category	2002	2003	2004	2005	2006
Solid Waste Disposal					
Government	352.3	685.8	1,009.6	637.5	621.8
Commercial/Institutional	32.5	46.5	108.2	17.5	12.4
Industrial	226.1	325.9	214.0	156.4	128.8
Site Remediation	990.7	1,131.0	1,438.5	1,006.8	871.6
MACT Processes					
Food and Agriculture Processes	42.8	42.8	79.5	19.5	19.5
Agricultural Chemical Production	1.7	0.0	1.1	1.0	0.1
Styrene or Methacrylate Based Resins	68.2	55.7	41.6	37.9	25.8
Alkyd Resin Production	228.5	239.8	233.0	65.6	58.4
Vinyl Based Resins	124.0	123.3	319.4	179.9	181.5
Miscellaneous Polymers	16.7	13.8	13.7	13.7	13.7
Fibers Production	0.3	0.0	0.0	0.0	0.0
Inorganic Chemicals Manufacturing	0.0	0.0	3.1	3.1	3.1
Consumer Product Mfg Facilities	57.0	235.3	231.4	253.1	282.2
Paint Stripper Use	1.0	3.8	2.8	2.8	2.8
Miscellaneous Processes	3.8	1.4	1.4	10.7	10.7
Phthalate Plasticizers Production	0.7	0.0	3.4	4.3	4.3
Totals	90,013.5	89,579.3	84,080.3	75,689.9	70,857.5

Table C6**2006
Estimated County Stationary Point Source Emissions (Tons/Year)**

County	Carbon Monoxide	Nitrogen Oxides	Particulate Matter	Sulfur Dioxide	Volatile Organic Material
Adams	329.8	568.5	489.8	1,653.0	941.5
Alexander	105.1	211.7	112.6	633.1	338.9
Bond	20.5	14.2	112.5	3.1	50.9
Boone	110.1	131.2	187.8	1.9	377.3
Brown	19.5	8.3	10.4	1.6	5.4
Bureau	41.5	92.6	247.9	2.7	151.5
Calhoun	0.6	0.7	37.7	0.0	0.0
Carroll	26.8	42.6	96.2	0.7	52.9
Cass	32.8	35.1	78.0	49.1	30.0
Champaign	513.3	1,152.7	633.8	1,076.0	639.9
Christian	1,019.9	14,420.4	607.4	17,467.3	415.4
Clark	3.0	9.0	156.2	1.0	63.1
Clay	24.1	55.5	78.9	16.7	82.3
Clinton	329.6	1,177.0	176.8	404.2	91.4
Coles	185.4	164.7	257.3	49.2	675.9
Cook	14,128.6	14,660.0	8,707.8	35,931.4	11,468.5
Crawford	1,119.1	3,726.5	860.7	19,698.1	1,246.1
Cumberland	0.4	0.0	23.4	0.0	40.3
DeKalb	104.9	117.3	326.3	10.2	260.2
DeWitt	96.9	36.3	159.3	4.1	26.0
Douglas	851.3	6,541.0	486.8	8,737.1	538.4
DuPage	981.5	1,189.6	638.3	113.5	1,939.0
Edgar	46.5	64.7	158.8	38.5	180.0
Edwards	5.4	12.3	55.4	0.1	116.3
Effingham	28.2	43.3	155.4	0.2	398.4
Fayette	85.0	273.0	151.8	378.5	94.6
Ford	42.5	76.5	335.5	0.9	752.2
Franklin	20.6	44.7	70.1	0.3	353.9
Fulton	209.7	2,117.9	428.1	5,203.2	47.3
Gallatin	4.5	18.1	60.5	6.4	31.3
Greene	0.0	0.0	60.1	0.1	5.4
Grundy	1,209.9	1,060.0	627.6	51.1	995.7
Hamilton	1.2	5.6	43.5	0.0	8.4
Hancock	33.7	17.9	172.1	1.2	9.2

Table C6

**2006
Estimated County Stationary Point Source Emissions (Tons/Year)**

County	Carbon Monoxide	Nitrogen Oxides	Particulate Matter	Sulfur Dioxide	Volatile Organic Material
Hardin	22.8	16.4	132.6	14.9	2.7
Henderson	0.4	0.0	90.4	0.0	2.1
Henry	779.7	3,100.2	263.6	1.8	272.1
Iroquois	21.4	17.9	317.5	2.9	246.2
Jackson	214.6	237.5	134.6	778.4	69.3
Jasper	1,098.4	5,031.6	1,200.0	20,972.8	172.7
Jefferson	62.4	56.5	80.5	2.3	161.1
Jersey	0.7	0.0	35.3	0.0	12.6
Jo Daviess	659.2	1,529.1	333.5	1.8	801.3
Johnson	40.0	27.9	72.3	336.8	19.6
Kane	713.3	744.9	833.7	51.5	1,463.2
Kankakee	1,239.4	2,879.1	419.2	89.3	1,124.6
Kendall	479.9	1,503.7	316.8	41.6	364.5
Knox	55.9	76.9	206.2	4.6	183.7
Lake	2,038.0	6,187.1	1,657.3	13,231.9	999.3
La Salle	5,708.7	3,986.0	2,278.4	3,941.3	1,289.5
Lawrence	8.0	16.7	31.1	1.4	76.0
Lee	450.3	1,765.2	2,019.4	1,010.8	355.3
Livingston	377.7	544.4	695.7	9.8	526.2
Logan	78.2	475.5	395.7	559.8	66.3
McDonough	94.0	138.4	140.2	990.1	90.2
McHenry	403.6	429.5	554.3	49.2	744.0
McLean	258.3	672.8	555.9	38.5	1,033.6
Macon	7,626.4	8,278.7	5,401.5	12,553.5	14,920.9
Macoupin	7.5	13.3	193.5	1.2	12.3
Madison	18,318.5	12,017.8	3,670.1	26,343.1	3,200.8
Marion	45.0	62.4	141.6	0.3	594.9
Marshall	25.1	208.5	454.3	4,096.6	609.4
Mason	477.2	754.0	485.0	7,457.0	63.5
Massac	1,909.5	10,724.8	2,304.1	26,794.0	434.8
Menard	0.0	0.0	74.3	0.0	9.6
Mercer	0.4	0.4	98.9	0.0	11.3
Monroe	4.2	10.9	68.7	0.0	24.9
Montgomery	595.8	9,355.3	561.8	41,164.5	104.4

Table C6

**2006
Estimated County Stationary Point Source Emissions (Tons/Year)**

County	Carbon Monoxide	Nitrogen Oxides	Particulate Matter	Sulfur Dioxide	Volatile Organic Material
Morgan	508.1	3,266.2	439.1	13,199.4	238.2
Moultrie	13.4	15.4	151.7	0.3	255.6
Ogle	294.0	145.0	537.8	21.8	1,292.2
Peoria	3,294.3	9,449.2	2,479.5	42,216.4	4,759.0
Perry	116.2	76.0	170.9	0.6	50.6
Piatt	229.6	2,499.8	161.6	1.4	99.3
Pike	267.2	2,900.5	184.8	1,706.2	71.9
Pope	0.0	0.0	0.0	0.0	0.0
Pulaski	92.5	66.0	107.8	202.2	12.4
Putnam	379.6	1,542.8	553.2	5,844.8	83.0
Randolph	2,054.0	4,631.7	3,122.6	22,009.1	318.0
Richland	0.6	2.5	27.1	0.0	13.2
Rock Island	877.1	882.2	564.9	1,783.6	978.1
St. Clair	560.8	558.2	865.4	1,824.4	1,126.3
Saline	39.5	15.0	212.4	1.0	17.6
Sangamon	1,025.2	9,119.6	743.3	11,538.5	376.1
Schuyler	5.3	6.1	84.7	0.0	6.0
Scott	43.1	24.5	78.6	17.8	6.3
Shelby	16.2	87.1	179.8	2.6	110.9
Stark	0.0	0.0	53.4	0.0	6.9
Stephenson	87.3	112.9	151.4	2.3	307.0
Tazewell	1,921.8	32,210.7	2,577.3	37,111.1	502.4
Union	73.6	77.1	47.3	842.6	38.7
Vermilion	525.5	2,203.4	1,017.3	11,942.1	2,705.4
Wabash	3.4	3.4	76.3	2.5	11.9
Warren	56.0	59.4	205.2	166.1	24.2
Washington	10.2	38.2	115.5	0.2	74.3
Wayne	55.1	102.6	50.2	185.9	65.7
White	336.3	967.6	77.3	3.2	50.1
Whiteside	1,348.2	364.4	451.1	164.7	210.2
Will	8,107.8	23,601.8	5,431.6	77,362.8	3,107.3
Williamson	1,116.6	4,570.9	334.3	7,259.3	295.4
Winnebago	699.9	631.2	928.1	94.4	1,060.0
Woodford	7.1	11.1	175.1	0.0	87.6

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
2004	80,479	248,245	76,787	507,142	84,080
2005	83,671	238,026	72,274	522,677	75,690
2006	89,717	219,200	65,384	487,588	70,858

Table C8**Annual Source Reported Emissions Trends (Tons)**

Year	Carbon Monoxide	Nitrogen Oxides	Particulate Matter	Sulfur Dioxide	Volatile Organic Material
1992	112,403	381,938	95,329	1,045,113	143,853
1993	113,781	418,209	89,830	1,001,123	108,847
1994	116,192	404,486	88,505	967,213	108,897
1995	160,256	366,978	67,032	814,229	103,144
1996	84,258	407,683	63,686	914,295	87,271
1997	71,408	404,289	57,135	974,232	76,350
1998	79,147	377,191	61,077	964,262	77,952
1999	91,153	360,850	56,717	863,759	71,514
2000	90,315	329,141	55,944	620,592	71,063
2001	83,453	291,778	53,603	531,504	62,647
2002	83,795	261,202	49,343	498,754	70,703
2003	75,511	230,068	49,874	507,338	63,495
2004	77,847	229,127	55,379	521,808	64,594
2005	85,892	215,366	52,878	486,534	62,251

APPENDIX D

THE BUREAU OF AIR/ DIVISION OF AIR POLLUTION CONTROL

Organization and Programs

The Bureau of Air consists of two divisions: the Division of Air Pollution Control and the Division of Vehicle Inspection and Maintenance. The focus of this section is on the programs of the Division of Air Pollution Control which is responsible for developing, implementing and enforcing regulations to assure that the air we breathe is clean and healthful. This mission is accomplished by finding, correcting and controlling air pollution hazards. The Division of Air Pollution Control also works to prevent air quality problems from occurring in areas which have clean air.

The basic strategy to improve air quality is to control the pollutants which are emitted by industry and motor vehicles. This strategy requires the IEPA to monitor the air, identify emission sources, impose limitations on the amount of emissions which can be released to the air and take the necessary enforcement action against violators.

The Division of Air Pollution Control is divided into five sections: Air Monitoring, Air Quality Planning, Compliance and Enforcement, Permits, and Field Operations. Each of these sections is briefly described below.

Air Monitoring

The Division of Air Pollution Control operates a statewide air quality monitoring network which includes more than 200 monitors. The Air Monitoring Section is responsible for the maintenance of this network, which operates year round monitoring the quality of the air that we breathe.

The IEPA monitors the air for a variety of pollutants including particulate matter, sulfur dioxide, ozone, carbon monoxide, lead and nitrogen dioxide. Specialized sampling projects for other hazardous pollutants are also conducted by the Air Monitoring Section.

Illinois residents can be proud of the IEPA's record of efficiency in data collection. The system ranks as one of the best in the nation with over 90 percent efficiency in the collection of high quality data. This high efficiency rate guarantees that the network is operating with a minimum amount of "down-time" thereby providing the IEPA with a complete and accurate description of air quality in Illinois.

The Air Monitoring Section is also responsible for validating and summarizing the data in this report. It provides notification of air quality exceedances and issues any episodes as required. Special air quality studies are performed which identify pollution trends and evaluate special air quality problems.

Air Quality Planning

The Air Quality Planning Section is responsible for developing Agency programs which are designed to achieve and maintain National Ambient Air Quality Standards and to prevent deterioration of air quality. This is accomplished by:

- Assessment of strategies and technologies for the elimination or reduction of air pollutant emissions.
- Conducting and reviewing detailed air quality studies using computerized air quality models.

- Proposing and supporting regulatory revisions where they are necessary to attain or maintain healthful air quality.
- 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 of the compliance program.

The work of the section is currently focused on the following areas:

- Formulating and interpreting policy regarding the Bureau's Air Pollution Compliance and Enforcement Program.
- Coordinating the Air Pollution Compliance and Enforcement Program with USEPA's Compliance and Enforcement Program.
- Coordinating, through the Bureau's Compliance Decision Group, the work of the Bureau's staff in order to provide an effective and efficient compliance program.
- Evaluate the Annual Emission Reports provided by Illinois industry.
- Oversees the source emissions monitoring program including continuous emission monitors (cems), stack testing, and excess emissions reporting

Permits

Permits are required in Illinois prior to construction and operation of emission sources and control equipment. The permit program provides a consistent and systemic way of ensuring that air emission sources are built and operated in compliance with air pollution control regulations.

In a permit application the IEPA requires: a description of the emission source, a list of types and amounts of the contaminants which will be emitted, and a description of the emission control equipment to be utilized. This information is used to determine if the emissions comply with standards adopted by the Illinois Pollution Control Board. Operating permits are granted for periods up to five years, after which they must be renewed. Operating permits for smaller facilities may run indefinitely. When a facility constructs a new emission source or makes modifications to existing emission sources, it must apply for a new construction permit.

Large sources also need a Federal Operating Permit which is administered by the IEPA. Under the Clean Air Act Permit Program (CAAPP) these large sources will be required to consolidate all of their existing State operating permits into one permit which will be available for public review and is subject to Federal oversight.

Field Operations

The Field Operations Section investigates sources of air pollution and works with industry to control air pollution. The major functions of the Field Operations Section include locating and identifying sources of air pollution, determining the amount of pollution emitted and verifying the information which industry submits when applying for a permit. Field Operations also initiates much of the IEPA's enforcement activities when violations are discovered. Approximately 3,000 investigations and inspections are conducted each year.

Table D1

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