State of Illinois
Illinois Environmental Protection Agency

40th Annual Air Quality Report

Illinois • 2010

December 2011

ILLINOIS ANNUAL AIR QUALITY REPORT 2010

Illinois Environmental Protection Agency
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Printed on recycled paper

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Acknowledgements

This document is produced by the Illinois Environmental Protection Agency; John Kim, Interim Director.

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

A MESSAGE FROM THE DIRECTOR

The Illinois EPA presents this 40th Annual Air Quality Report to summarize air quality data collected in calendar year 2010. This report includes monitoring data for a number of air pollutants as well as some heavy metals.

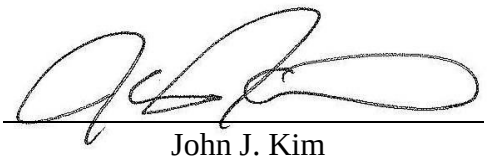
Air quality is an important issue for all Illinois residents, especially those with chronic lung and heart disorders. Since the creation of the Illinois EPA in 1970, we have learned a great deal about what is in the air we breathe and what we can do to make the air cleaner. The Illinois EPA focuses on many environmental issues, but providing a healthy, clean environment for Illinois citizens has always been and will continue to remain a top priority.

Data in the 2010 Air Quality Report show the air quality was either good or moderate 91 percent of the time through Illinois. There were no days when the air quality was considered to be Unhealthy (category red) according to the national Air Quality Index.

Over the past decade (2001-2010), coarse particulate matter (PM_{10}) has decreased 25 percent, fine particulate matter ($PM_{2.5}$) decreased 24 percent and carbon monoxide decreased 52 percent.

The Illinois EPA strives to provide a healthy environment for all citizens. Data are not only collected and analyzed; they are made available to the public on a daily basis through the Agency's website www.epa.state.il.us/air/air-quality-menu.html. The information can be critical to individuals with lung and heart disorders. The Illinois EPA will continue this essential service as it works toward further improvements in air quality.

If you have any questions and/or comments regarding the 2010 Annual Air Quality Report or air pollution control programs, please feel free to contact the Illinois EPA.



John J. Kim
Interim Director

Illinois Annual Air Quality Report 2010

Contents

Appendices

Tables

Figures

2010
EXECUTIVE SUMMARY

This report presents a summary of air quality data collected throughout the State of Illinois during the calendar year - 2010. Data is presented for the six criteria pollutants (those for which air quality standards have been developed - particulate matter (PM_{10} and $PM_{2.5}$), ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead) along with some heavy metals, nitrates, sulfates, 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 2010 was either good or moderate 91 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 one Unhealthy day in 2009. There were 32 days (22 for 8-hour ozone, 9 for $PM_{2.5}$ and 1 for both 8-hour ozone and $PM_{2.5}$) when air quality in some part of Illinois was considered Unhealthy for Sensitive Groups (category Orange). This compares with 13 Unhealthy for Sensitive Groups days reported in 2009. 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 2001 – 2010 are as follows: Particulate Matter (PM_{10}) 25 percent decrease, Particulate Matter ($PM_{2.5}$) 24 percent decrease, Sulfur Dioxide 43 percent decrease, Nitrogen Dioxide 25 percent decrease, Carbon Monoxide 52 percent decrease, Lead 33 percent decrease, and Ozone 19 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, 2010. Emission estimates are for the calendar year 2010 and are for the pollutants: particulate matter, volatile organic material, sulfur dioxide, nitrogen oxides and carbon monoxide. Emission trends of these pollutants have been given for the years 1998 to the present. Emissions reported with the Annual Emissions Report have been provided starting with 1998 and are currently available through 2009. In general there has been a trend toward decreasing emissions over this time period.

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

Ozone (O_3)

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

Absorption of ultraviolet light energy by nitrogen dioxide results in its dissociation into nitric oxide and an oxygen atom. The oxygen atoms, for the most part, react with atmospheric molecular oxygen (O_2) to form ozone (O_3). In general, nitric oxide will react with ozone to re-form nitrogen dioxide, completing the cycle. A 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/m^3 (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 SO_2 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 (SO_2)

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 SO_3 (sulfur trioxide). In the presence of water vapor, SO_3 is readily converted to sulfuric acid mist. Other basic oxides combine with SO_3 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 SO_2 may be a result of the oxidation of SO_2 to other compounds.

The effects of SO_2 on health are irritation and inflammation of tissue that it directly contacts. Inhalation of SO_2 causes bronchial constriction resulting in an increased resistance to air flow, reduction of air volume and an increase of respiratory rate and heart rate.

SO_2 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 (H_2SO_4) 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 (NO_2)

Nitrogen gas (N_2) 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 (N_2) may combine with molecular oxygen (O_2) to form various oxides of nitrogen (NO_x). Of these, nitric oxide (NO) and nitrogen dioxide (NO_2) 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. NO_2, a secondary derivative of atmospheric nitric oxide, however, has been clearly established as exerting detrimental effects on human health and welfare.

NO_2 can cause an impairment of dark adaptation at concentrations as low as 0.07 ppm. NO_2 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. NO_2 is a deep lung irritant capable of producing pulmonary edema if inhaled in sufficient concentrations. When NO_2 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 (O_3) 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. No safe level of lead in the blood has been identified. Clinical, epidemiological and toxicological studies have demonstrated exposure to lead has a broad range of health effects.

Since 1990 over 6,000 new health studies have been conducted. These studies have shown that children are the most susceptible to the damaging effects of lead because they are more likely to ingest lead due to hand-to-mouth activity and early body development. Lead exposure has been found to interfere with the developing nervous system including the brain. This can potentially lead to IQ loss, poor academic achievement, permanent learning disabilities and behavioral problems. These effects can persist into early adulthood.

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.

Other potential effects from lead exposure are weakened immune systems, restlessness, headaches, increased blood pressure and cardiovascular disease.

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 (PM_{10})	24-hour	150 ug/m^3	Same as Primary
Particulate Matter	Annual Arithmetic Mean	15.0 ug/m^3	Same as Primary
2.5 micrometers ($PM_{2.5}$)	24-hour	35 ug/m^3	Same as Primary
Sulfur dioxide	1-hour*	75 ppb	None
	3-hour	None	0.5 ppm
Carbon Monoxide	1-hour	35 ppm	None
	8-hour	9 ppm	None
Ozone	1-hour	0.12 ppm	Same as Primary
	8-hour	0.075 ppm	Same as Primary
Nitrogen Dioxide	Annual Arithmetic Mean	53 ppb	Same as Primary
	1-hour*	100 ppb	None
Lead	Rolling 3-Month Mean	0.15 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.
*New standard established starting 2010

Table 2: Illinois Air Pollution Episode Levels

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

SECTION 2: STATEWIDE SUMMARY OF AIR QUALITY FOR 2010

OZONE

Monitoring was conducted at 34 locations during at least part of the April-October "ozone season" and at least 75 percent data capture was obtained at 33 sites.

No sites recorded hourly concentrations above the 0.12 parts per million (ppm) 1-hour standard. The highest 1-hour concentration in the Chicago area 0.100 ppm at Zion and Lemont compared with a high 1-hour value of 0.118 ppm at Zion in 2009. The highest value in the St. Louis Metro East area was 0.115 ppm recorded at East St. Louis compared with a high in 2009 of 0.115 ppm at East St. Louis.

Data is also presented to compare with the 8-hour standard of 0.075 ppm. The appropriate statistic for comparison with the 8-hour standard is the fourth highest value, which is averaged over a three year period. There were two sites in Illinois that had a fourth high value above 0.075 ppm in 2010 compared with zero sites in 2009. The highest fourth high value was 0.080 ppm at Alton. The highest level in the Chicago area was 0.078 ppm at Zion. For the three year period 2008 – 2010, no sites had a fourth high average above 0.075 ppm (Table B4).

Figure 1 shows for each year the statewide average of each site's highest hourly ozone value for the ten year period 2001-2010. The graph shows some year-to-year fluctuation and a general decreasing 10-year trend since 2002 with high years in 2002 and 2005 and low years in 2004, 2008 and 2009. The Statewide average for 2010 was 0.087 ppm compared with 0.082 ppm in 2009 and 0.082 ppm in 2008.

Statewide, the total number of 1-hour excursion days in 2010 was zero compared with zero in 2009 and zero in 2008.

Figure 1
Average 1-Hour Ozone Maximum (ppm)

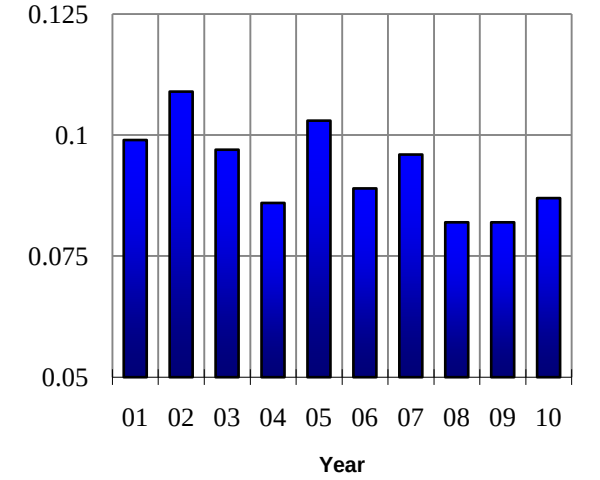


Figure 2
Average 8-Hour Ozone 4th High (ppm)

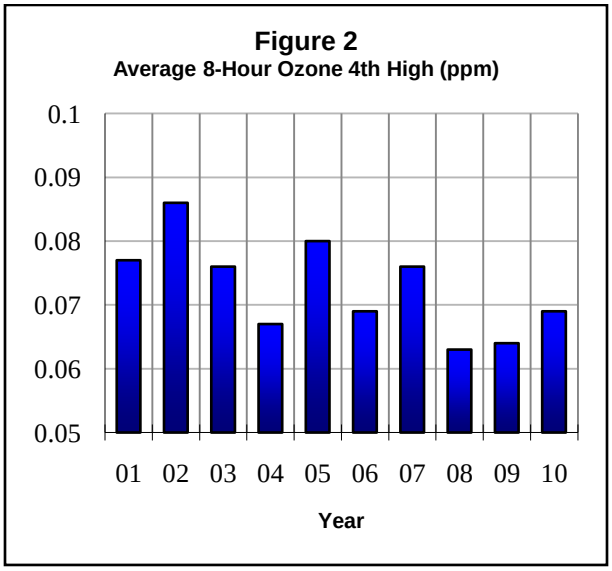


Figure 2 shows for each year the statewide average of the 4th highest 8-hour ozone value for the same period 2001-2010. This trend is generally decreasing since 2002 as well.

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

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

PARTICULATE MATTER

Monitoring was conducted at 38 sites for $PM_{2.5}$. Valid annual averages were obtained for 34 of the 38 sites. No sites recorded an average above 15.0 ug/m^3, the level of the annual standard, compared with no sites in 2009 and one site in 2008. The Statewide average of the annual averages was 11.6 ug/m^3 in 2010 compared with 10.6 ug/m^3 in 2009 and 11.6 ug/m^3 in 2008. **Figure 3** shows the trend of the Statewide annual averages for $PM_{2.5}$ for the period 2001-2010. There were 31 exceedances of the revised 24-hour standard of 35 ug/m^3 in 2010 compared with 16 exceedances in 2009. The Statewide peak of 48.1 ug/m^3 was recorded at Chicago Mayfair Pump Station. The Statewide average of the 98th percentile of 24-hour averages was 26.9 ug/m^3 in 2010 compared with 24.3 ug/m^3 in 2009 and 27.4 ug/m^3 in 2008.

In 2010 there were 17 sites monitoring PM_{10}. The Statewide annual average was 23 ug/m^3 compared with 20 ug/m^3 in 2009 and 22 ug/m^3 in 2008.

For PM_{10} the Statewide average of the maximum 24-hour averages in 2010 was 62 ug/m^3 compared with 56 ug/m^3 in 2009 and 62 ug/m^3 in 2008. **Figure 4** depicts this trend for the period 2001-2010.

No sites exceeded the former primary annual standard of 50 ug/m^3. The highest annual average was 32 ug/m^3 in Granite City. The lowest annual was 17 ug/m^3 in Northbrook and Nilwood. There were no exceedances of the 24-hour primary standard of 150 ug/m^3. The highest 24-hour average was recorded in Granite City with a value of 106 ug/m^3 compared with a high 24-hour value of 115 ug/m^3 in Granite City in 2009.

Figure 3
Particulate Matter (PM2.5) Annual Trends (ug/m3)

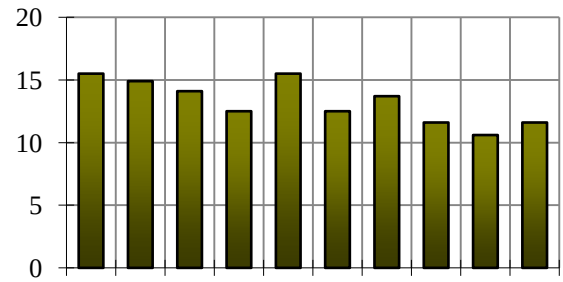
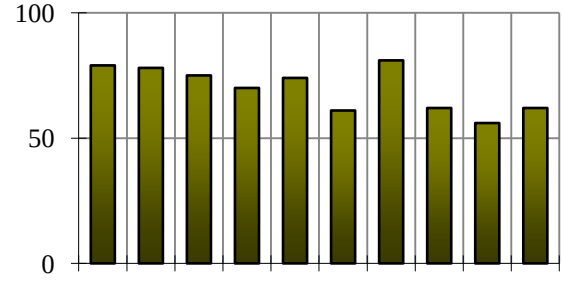


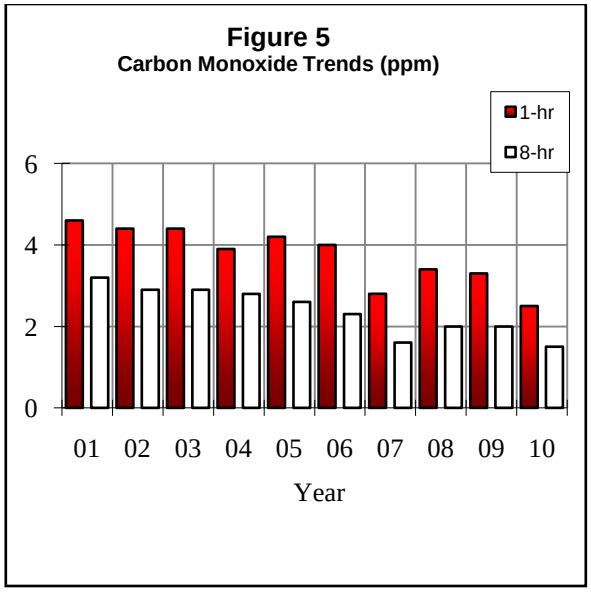
Figure 4
Particulate Matter (PM10) 24-Hour Trends (ug/m3)



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 2010. The highest 1-hour average was 4.3 ppm recorded at Chicago Transit Authority. The highest 8-hour average was 2.0 ppm recorded in Maywood.

Figure 5 shows the trend for the period 2001-2010 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 2.5 ppm in 2010 compared with 3.3 ppm in 2009. The statewide average for the 8-hour high was 1.5 ppm in 2010 compared with 2.0 ppm in 2009.



SULFUR DIOXIDE

There were 50 exceedances of the new 1-hour primary standard of 75 ppb in 2010 compared with 68 exceedances in 2009. There were no exceedances of the 3-hour secondary standard of 500 ppb in 2010. The annual and 24-hour primary standards were revoked by USEPA in 2010. The highest 1-hour average was 331 ppb recorded in Pekin compared with 352 ppb in Pekin in 2009. The statewide average of the 1-hour high in 2010 was 75 ppb. This compares with 81 ppb in 2009 and 128 ppb in 2008. The highest 3-hour average of 223 ppb was recorded in Pekin in 2010 compared with 265 ppb in Pekin in 2009. There were four sites over the primary 1-hr standard of 75 ppb for the 2008-2010 period compared to six sites for the 2007-2009 period (Table B17).

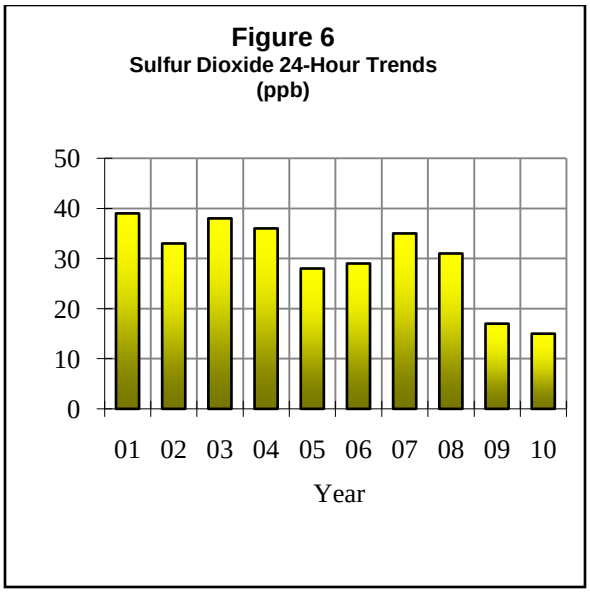


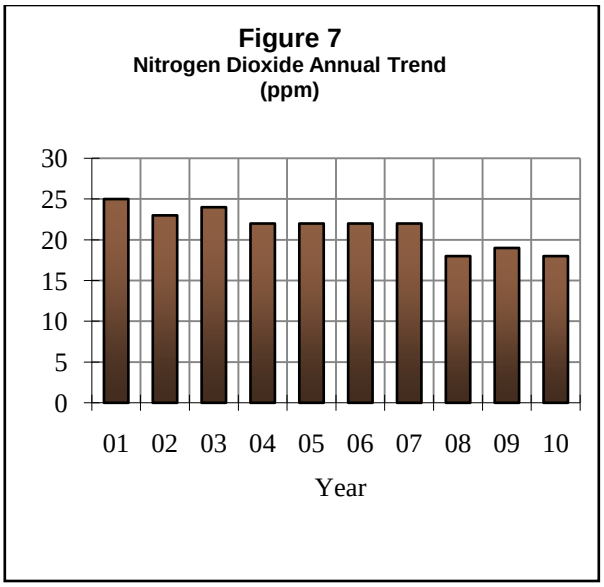
Figure 6 shows the statewide trend for the maximum 24-hour averages for the period 2001-2010. The 24-hour average trend has been overall downward; however a greater degree of year-to-year fluctuations have occurred. The statewide average for 2010 was 15 ppb compared with the 2009 average of 17 ppb. Statewide 1-hour average maximums have also declined. The 2010 average was 75 ppb compared to 81 ppb in 2009.

NITROGEN DIOXIDE

There were no violations of the annual primary standard of 53 ppb recorded in Illinois during 2010. The highest annual

average of 25 ppb was recorded at Chicago - CTA. The Statewide average for 2010 was 18 ppb compared with 19 ppb in 2009 and 18 ppb in 2008. There were no violations of the new 1-hour primary standard in 2010 as well. This compares to 15 violations in 2009. There were no sites over the 1-hour primary standard of 100 ppb for the 2008-2010 period compared to one site for the 2007-2009 period (Table B20).

One site operated only during part of the ozone season as PAMS. **Figure 7** depicts the trend of statewide averages from 2001-2010. The trend has been generally stable for the period ranging from 17 ppb to 25 ppb. 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. Based on new health studies the lead standard was revised in 2008 from a quarterly mean of 1.5 ug/m3 to a rolling 3-month maximum mean of 0.15 ug/m3.

There were no violations of the former quarterly lead standard of 1.5 ug/m3. There were two violations of the new rolling 3-month maximum mean standard for the 2008 to 2010 period recorded at Granite City - 15th & Madison with a value of 0.42 ug/m3 and Chicago Perez with a value of 0.24 ug/m3. This compares with a statewide high of 0.28 ug/m3 for 2007 to 2009 at Granite City 15th & Madison.

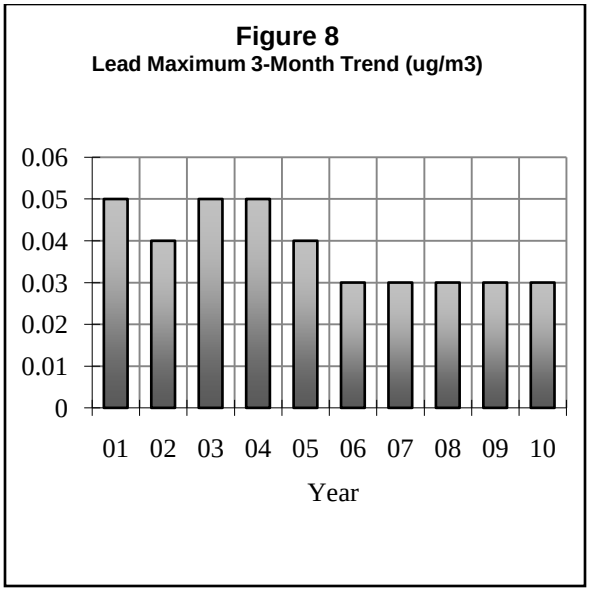


Figure 8 shows the trend of the statewide non-source maximum monthly averages from 2001-2010. The chart shows a general flat trend of ambient lead levels over the last several years. In 2010, several source oriented monitors were installed and one non-source monitor was discontinued. Currently, not enough data exists for the source oriented sites to establish a trend.

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 0.136 ug/m^3 measured in Granite City. The highest annual average of 0.007 ug/m^3 was also recorded at Granite City. There were no measurable beryllium 24-hour averages recorded statewide. Chicago Perez recorded the highest cadmium concentrations with a maximum 24-hour average of 0.031 ug/m^3. The highest annual average of 0.004 ug/m^3 was also recorded at Chicago Perez. The highest 24-hour chromium average was 0.066 ug/m^3 recorded at Chicago – Washington. Maywood had the highest annual average at 0.020 ug/m^3. The highest iron and manganese values were recorded in South Chicago and the high traffic areas of Maywood. The highest 24-hour average for nickel was recorded at Granite City with a value of 0.184 ug/m^3. The highest annual average was in Maywood with an average of 0.010 ug/m^3. For nitrates, the highest 24-hour average was 33.9 ug/m^3 recorded at Summit. The highest annual average was 5.6 ug/m^3 recorded at Alsip. For sulfates, the highest 24-hour average was 18.2 ug/m^3 recorded at Maywood. The highest annual average was 7.2 ug/m^3 at Chicago - Washington. In general, metals, nitrate and sulfate values were slightly higher in 2010 than in 2009.

TOXIC COMPOUNDS

Sampling for toxic compounds other than metals (see Filter Analysis Section) was conducted at Northbrook and Schiller Park. Most compounds were below the method detection limits. The highest compounds were toluene, mercury, benzene, and formaldehyde.

$PM_{2.5}$ SPECIATION

$PM_{2.5}$ samples are also analyzed for numerous constituents at 5 sites. The major constituents (inorganic elements, ammonium, nitrate, sulfate, elemental and organic carbon) are listed in **Table B26**. In general, approximately 62% is ammonium nitrate and ammonium sulfate, 32% is elemental and organic carbon and 6% 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 2010. 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 (O_3)
- Sulfur dioxide (SO_2)
- Carbon monoxide (CO)
- Particulate matter (PM_{10})
- Particulate matter ($PM_{2.5}$)
- Nitrogen dioxide (NO_2)

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. 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:

- O_3 estimate of the highest 8-hour average for that calendar day
- SO_2 the highest 1-hour or most recent 24-hour average
- CO the highest 8-hour average so far that calendar day
- PM_{10} the most recent 24-hour average
- $PM_{2.5}$ estimate of the 24-hour average for that calendar day
- NO_2 the highest 1-hour average

Continuous monitors are utilized for all the pollutants including PM_{10} 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 summer 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.

2010 Illinois AQI Summary

In order to present a more representative AQI, 24-hour calendar day $PM_{2.5}$ and PM_{10} 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 2010. Most sectors had a higher frequency of "Good" than "Moderate" and "Unhealthy for Sensitive Groups". Lake County, Aurora-Elgin, Joliet/Will County, Rockford, Quad Cities, Peoria, Champaign, Normal, Decatur and Springfield sectors had 70 percent or more of the days in the "Good" category. Within AQI sectors there were 56 occurrences of "Unhealthy for Sensitive Groups" air quality in 2010. The sector breakdown for "Unhealthy for Sensitive Groups" was 4 in Lake County, 9 in Chicago, 6 in North & West Suburbs, 9 in South & West, 1 in Aurora-Elgin, 7 in Will County, 2 in Rockford, 1 in Normal, and 17 in Metro-East. Outside of AQI sectors there was one additional occurrence of "Unhealthy for Sensitive Groups". **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 2010, 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. There were 4 Air Pollution Action Days issued in 2010. This compares with 2 in 2009.

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: 2010 Air Quality Index Summaries by Sector

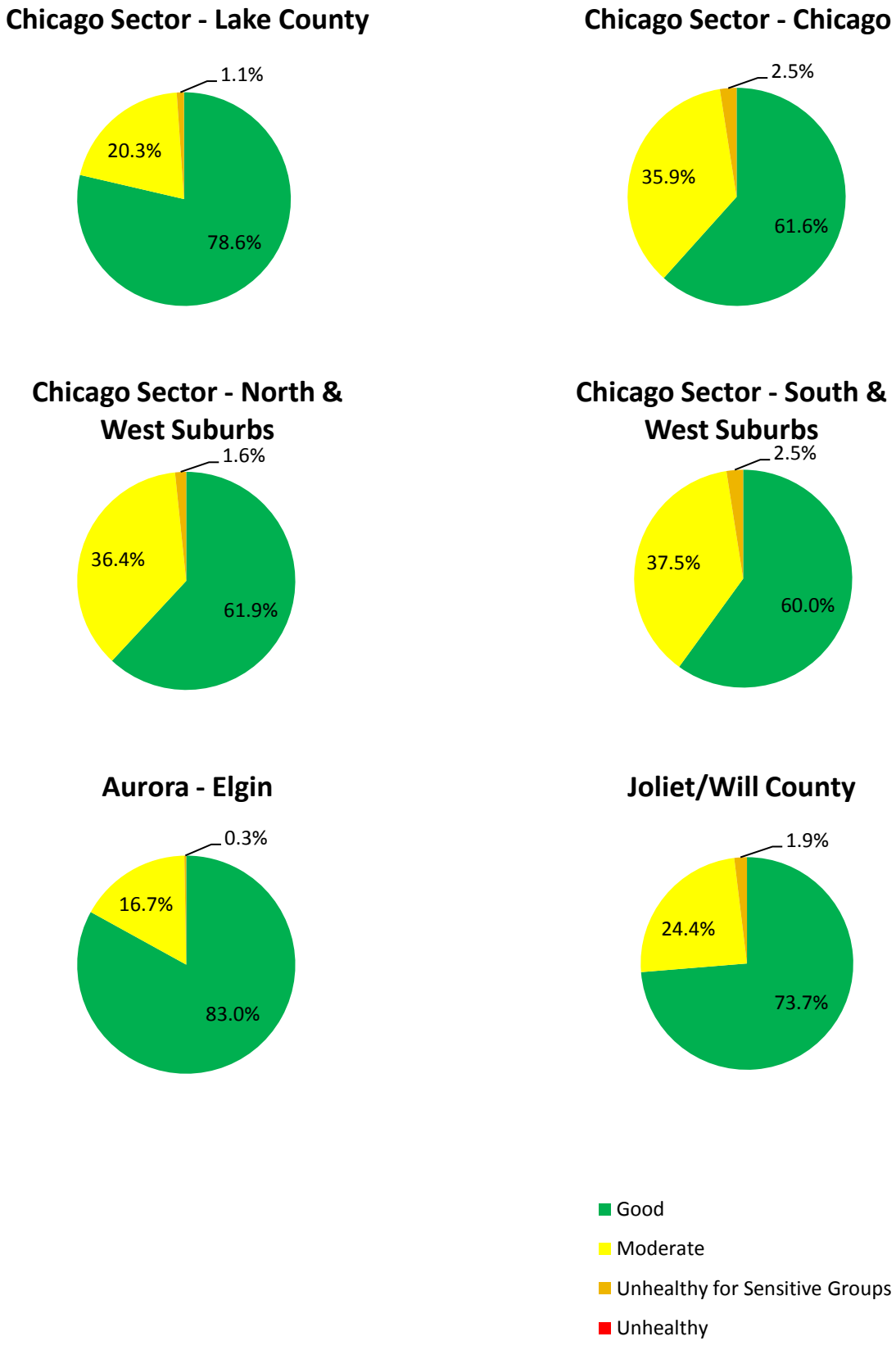


Figure 9: 2010 Air Quality Index Summaries by Sector

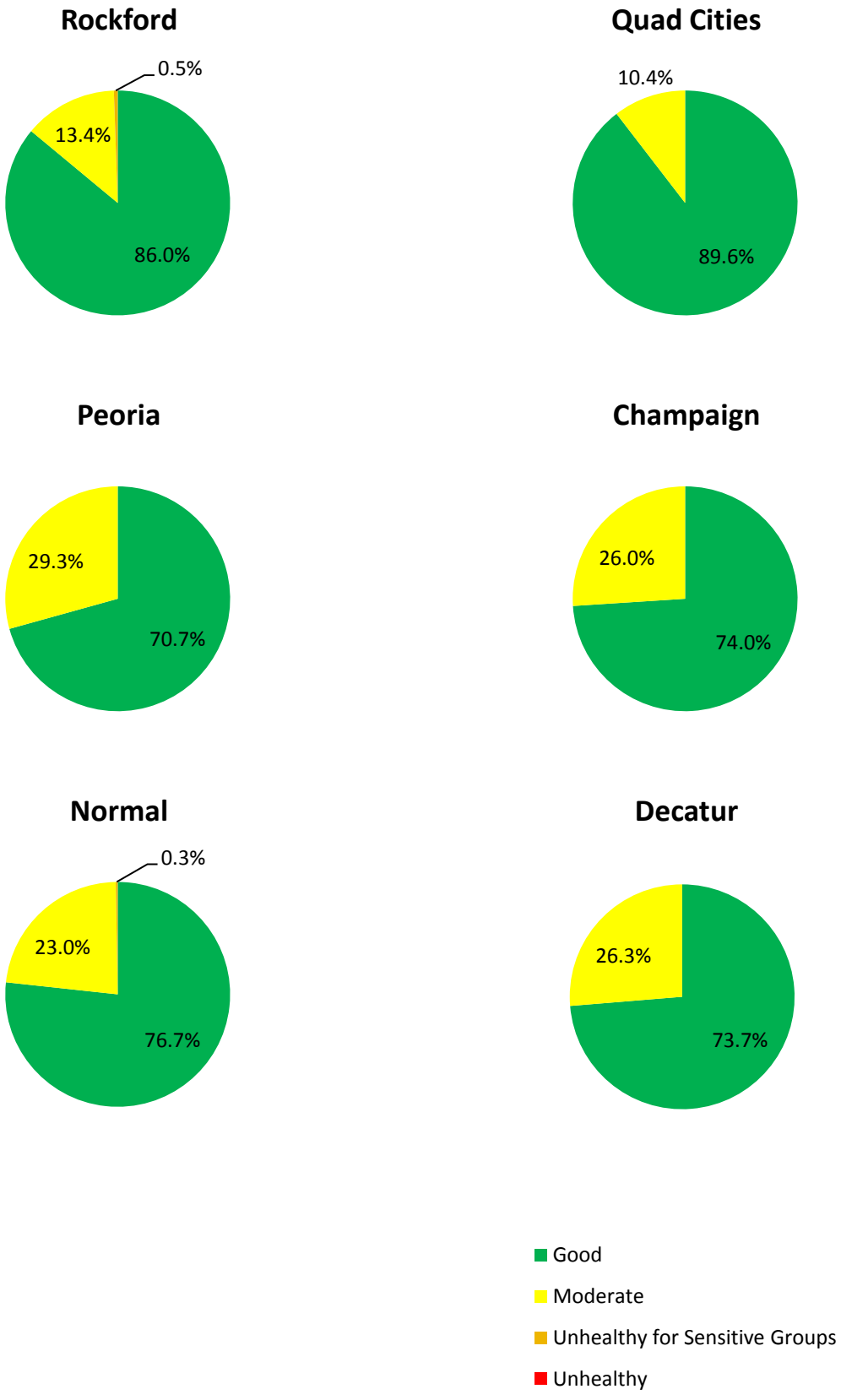
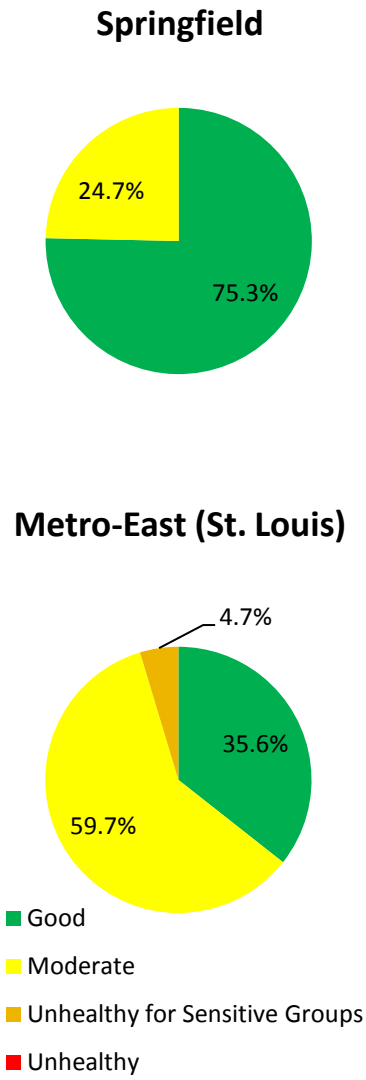


Figure 9: 2010 Air Quality Index Summaries by Sector



SECTION 4: STATEWIDE SUMMARY OF POINT SOURCE EMISSIONS

Since the late 1970s, 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 6,500 active sources throughout the State. The ISSIS data includes source addresses, source emission totals, permit data such as expiration date and status, emission unit data such as name, hours of operation, operating rate, fuel parameters and emissions, control equipment data such as control device name, type and removal efficiencies, and stack parameters. Reported emissions and Agency calculated emissions are stored separately.

Also in March, 1999, the group responsible for the entry of emission inventory data was switched from the Permit Section to the Inventory Unit of the Compliance and Systems Management Section. The Inventory Unit, now in the Air Quality Planning Section, uses permit applications, the issued permit and data reported on annual emission reports to compile the inventory.

The following tables and graphs are an analysis of the emissions data contained in ISSIS at the end of 2010. 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. The Inventory Unit has been updating its estimated emissions to more accurately reflect the reported emissions.

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.

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 C**.

VOLATILE ORGANIC MATERIAL

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

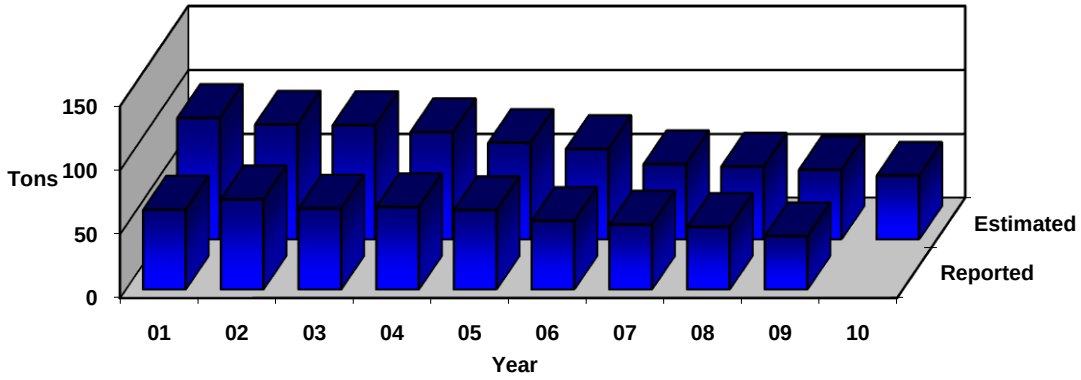


Table 5: Volatile Organic Material Emissions - 2010

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Food/Agriculture	10,549.7	21.11%	21.11%
Chemical Manufacturing	6,835.8	13.68%	34.79%
Surface Coating Operations	6,644.3	13.30%	48.08%
Printing/Publishing	4,675.8	9.36%	57.44%
Fuel Combustion	3,650.9	7.31%	64.74%
Petroleum Product Storage	3,083.8	6.17%	70.92%
Rubber and Plastic Products	2,130.5	4.26%	75.18%
Petroleum Industry	2,021.2	4.04%	79.22%
Mineral Products	1,504.6	3.01%	82.23%
Bulk Terminal/Plants	1,338.1	2.68%	84.91%
Organic Chemical Storage	1,100.8	2.20%	87.11%
Secondary Metal Production	812.4	1.63%	88.74%
Fabricated Metal Products	748.3	1.50%	90.24%
Organic Solvent Use	607.5	1.22%	91.45%
Organic Solvent Evaporation	525.4	1.05%	92.50%
Dry Cleaning (petroleum based)	524.1	1.05%	93.55%
All Other Categories	3,222.2	6.45%	100.00%

PM10

Figure 11
PM10 Emission Trend
(1000s of Tons/Year)

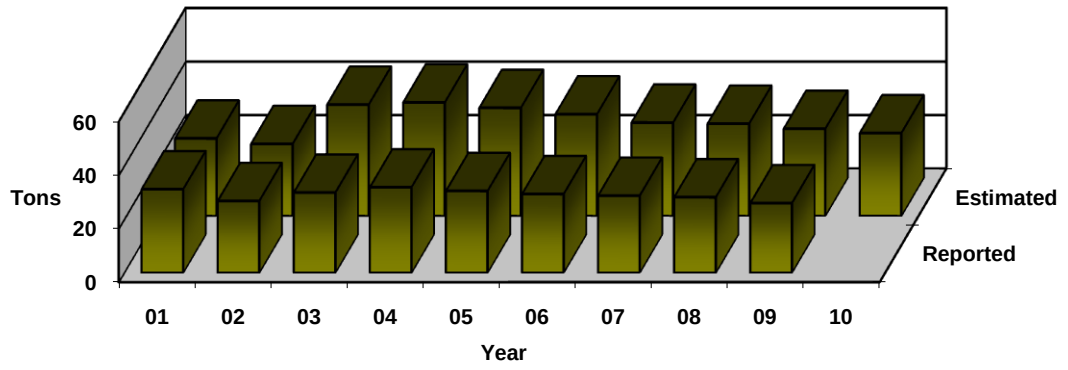


Table 6: Distribution of PM10 Emissions – 2010

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Fuel Combustion	10,450.4	33.79%	33.79%
Food/Agriculture	7,141.3	23.09%	56.87%
Mineral Products	6,486.5	20.97%	77.85%
Petroleum Industry	1,593.4	5.15%	83.00%
Secondary Metal Production	1,351.6	4.37%	87.37%
Chemical Manufacturing	1,077.7	3.48%	90.85%
Primary Metal Production	790.9	2.56%	93.41%
Solid Waste Disposal	451.6	1.46%	94.87%
Process Cooling	384.4	1.24%	96.11%
Fabricated Metal Products	320.8	1.04%	97.15%
All Other Categories	882.3	2.85%	100.00%

CARBON MONOXIDE

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

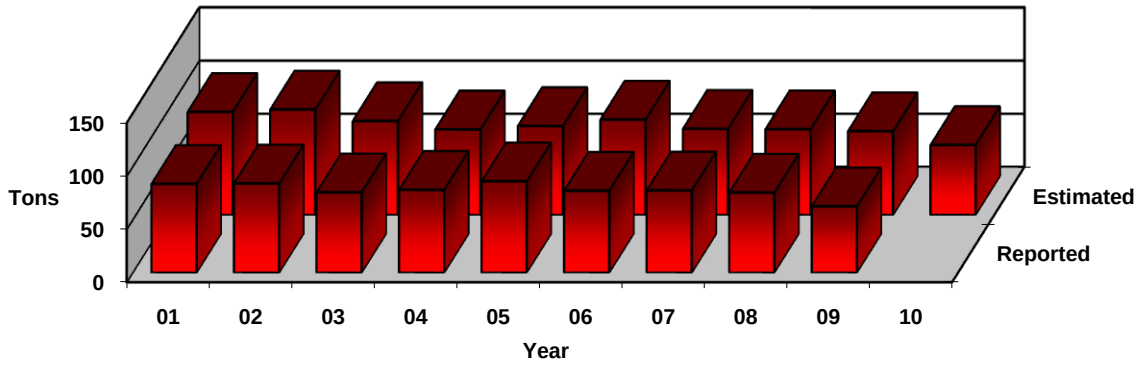


Table 7: Distribution of Carbon Monoxide Emissions - 2010

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Fuel Combustion	36,703.5	55.78%	55.78%
Primary Metal Production	9,947.8	15.12%	70.90%
Petroleum Industry	4,018.8	6.11%	77.01%
Mineral Products	3,640.1	5.53%	82.54%
Food/Agriculture	3,237.1	4.92%	87.46%
Solid Waste Disposal	2,750.7	4.18%	91.64%
Secondary Metal Production	2,646.3	4.02%	95.66%
Chemical Manufacturing	1,446.2	2.20%	97.86%
Health Services	343.1	0.52%	98.38%
Fabricated Metal Products	235.9	0.36%	98.74%
Oil and Gas Production	211.5	0.32%	99.06%
All Other Categories	616.2	0.94%	100.00%

SULFUR DIOXIDE

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

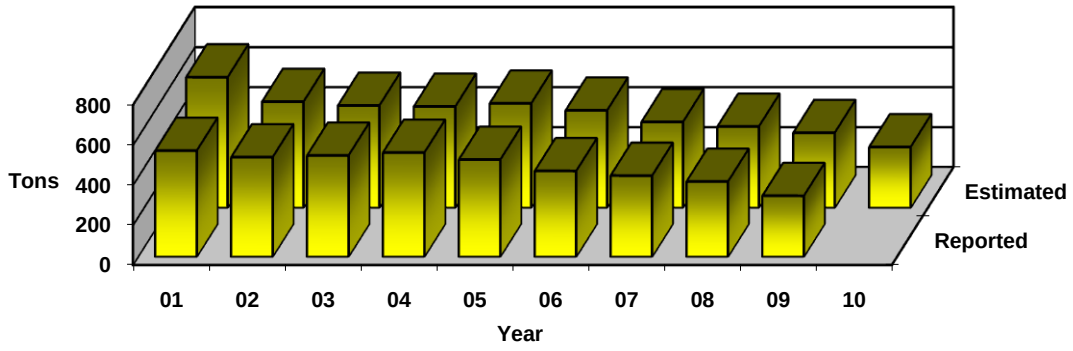


Table 8: Distribution of Sulfur Dioxide Emissions - 2010

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Fuel Combustion	277,342.1	91.02%	91.02%
Mineral Products	13,347.2	4.38%	95.40%
Petroleum Industry	7,875.6	2.58%	97.98%
Food/Agriculture	1,341.0	0.44%	98.42%
Chemical Manufacturing	1,219.8	0.40%	98.82%
Solid Waste Disposal	1,181.8	0.39%	99.21%
Primary Metal Production	1,119.7	0.37%	99.58%
In-Process Fuel Use	669.3	0.22%	99.80%
All Other Categories	612.4	0.20%	100.00%

NITROGEN OXIDES

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

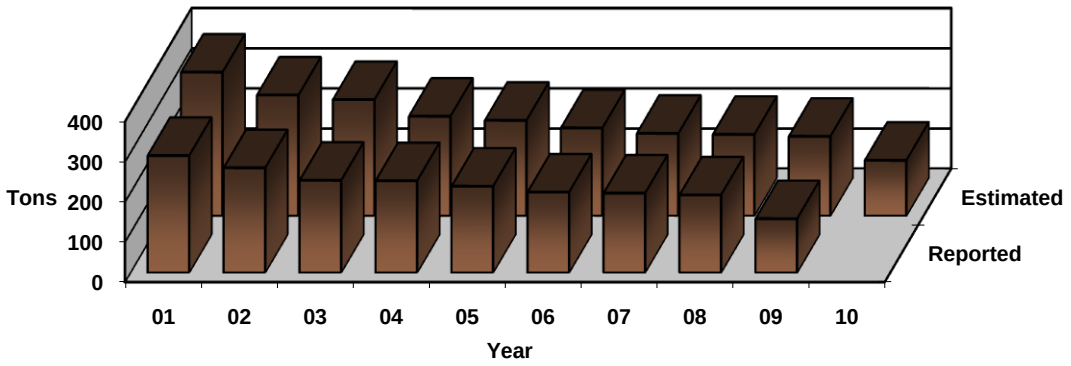


Table 9: Distribution of Nitrogen Oxide Emissions - 2010

Category	Estimated Emissions (tons)	Category Contribution	Cumulative Percent
Fuel Combustion	113,519.4	82.06%	82.06%
Mineral Products	8,692.5	6.28%	88.34%
Petroleum Industry	7,751.7	5.60%	93.94%
Food/Agriculture	1,751.1	1.27%	95.21%
Chemical Manufacturing	1,485.3	1.07%	96.28%
Primary Metal Production	1,199.6	0.87%	97.15%
Solid Waste Disposal	922.5	0.67%	97.82%
Secondary Metal Production	865.9	0.63%	98.44%
Oil and Gas Production	756.3	0.55%	98.99%
In-Process Fuel Use	450.1	0.33%	99.31%
All Other Categories	949.4	0.69%	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 2010.

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), five types of monitoring stations are used to collect ambient air data (SLAMS, NAMS, PAMS, SPMS and NCORE). 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 and NCORE designations for the sites operated within the State of Illinois are provided in the Annual Network Plan (epa.state.il.us/air/monitoring/index.html). All of the industrial sites are considered to be SPMS. **Table A2** is a summary of the distribution of pollutants through the years along with total number of instruments and total number of sites. The Site Directory is listed in **Table A3** and the Monitoring Directory is listed in **Table A4.**

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
2010 Noncontinuous Sampling Schedule

JANUARY						
S	M	T	W	R	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	R	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	R	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	R	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	R	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	R	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	R	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	R	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	R	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	R	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	R	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	R	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 (NOx and VOC), and meteorology. VOC and NOx sampling is required for the period June - August each year. Ozone sampling occurs during the ozone season, April - October. Network design is based on four monitoring types. In Illinois PAMS are required in the Chicago metropolitan area only.

a. Type 1 sites are located upwind of the non-attainment area and are located to measure background levels of ozone and precursors coming into the area

b. Type 2 sites are located slightly downwind of the major source areas of ozone precursors.

c. Type 3 sites are located at the area of maximum ozone concentrations.

d. Type 4 sites are located at the domain edge of the non-attainment area and measure ozone and precursors leaving the area.

4. Special Purpose Monitoring Station (SPMS) Network - Any monitoring site that is not a designated SLAMS or NAMS is considered a special purpose monitoring station. Some of the SPMS network objectives are as follows:

a. To provide data as a supplement to stations used in developing local control strategies, including enforcement actions.

b. To verify the maintenance of ambient standards in areas not covered by the SLAMS/NAMS network.

c. To provide data on noncriteria pollutants.

5. National Core Station (NCore) Network - NCore is a multi pollutant network that integrates several advanced measurement systems. It is anticipated that each state operate at least one NCore site by 2011. In Illinois, Northbrook and Bondville will be considered NCore sites. A few of the NCore network objectives are as follows:

a. Support for development of emission strategies and accountability of emission strategy progress through tracking long-term trends of pollutants and their precursors.

b. Support of long-term health assessments that contribute to review of National Standards.

c. Support to scientific studies ranging across technological, health and atmospheric process disciplines.

d. Support to ecosystem assessments recognizing that national air quality networks benefit ecosystems assessments.

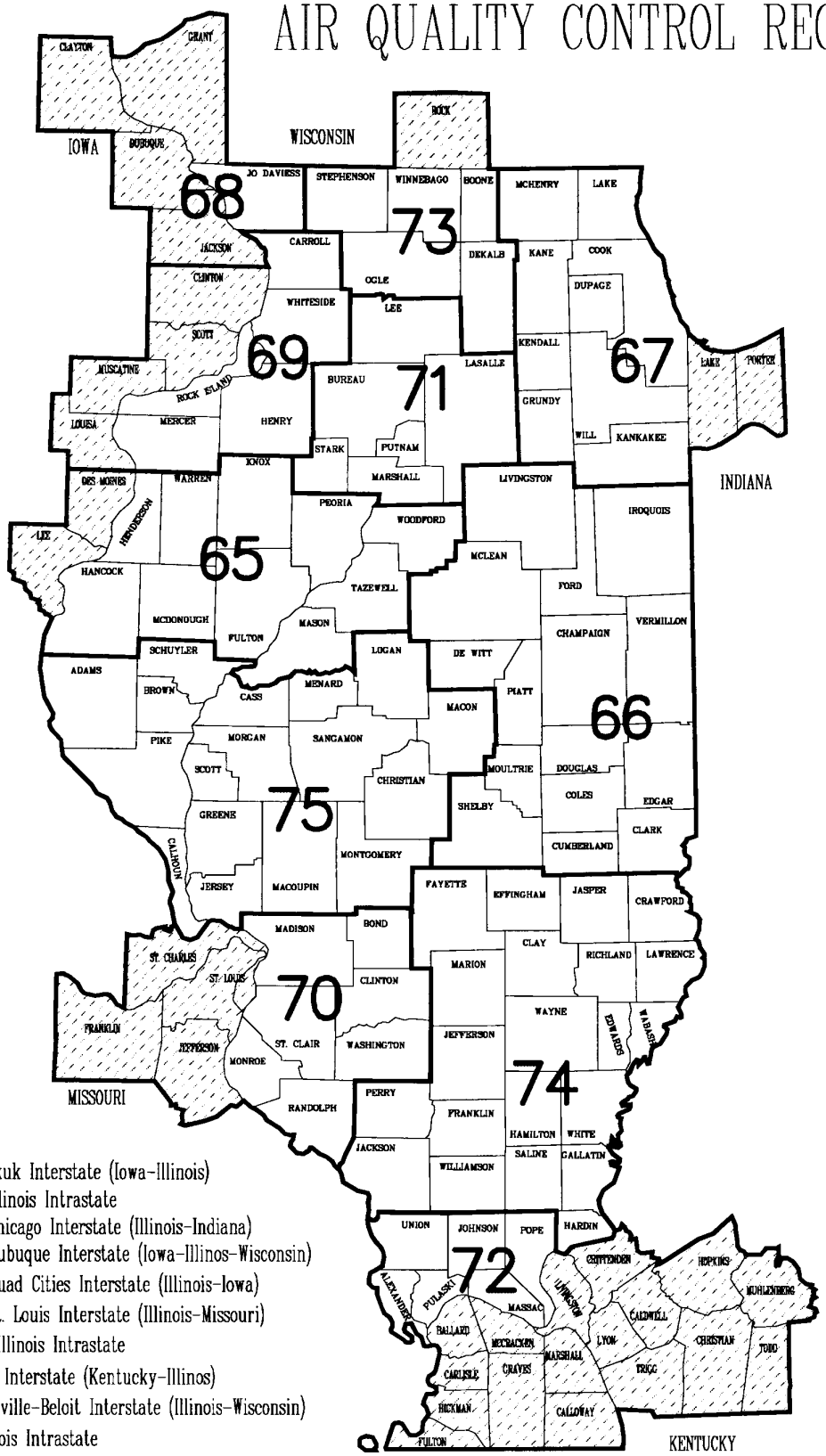
Table A2

DISTRIBUTION OF AIR MONITORING INSTRUMENTS

	2010	2009	2008	2007	2006
Particulate Matter ($PM_{2.5}$)	38	38	38	38	38
$PM_{2.5}$ Air Quality Index	13	13	13	13	12
$PM_{2.5}$ Speciation	5	5	5	6	6
Particulate Matter (PM_{10})	17	17	17	17	19
Total Suspended Particulates (TSP)	18	13	13	13	12
Lead	18	13	13	13	13
Continuous Mercury	1	1	1	1	1
Sulfur Dioxide	19	19	20	20	21
Nitrogen Dioxide	7	7	7	8	8
Ozone	36	36	36	37	37
Carbon Dioxide	1	1	1	1	1
Carbon Monoxide	9	9	9	9	8
Volatile Organic Compounds/Toxics	2	2	2	4	4
Wind Systems	18	18	18	19	19
Solar Radiation	9	9	9	9	9
Meteorological	3	3	4	4	4
Total Instruments	214	204	206	212	212
Total Sites	84	77	77	79	80

There were a number of changes to the monitoring network from 2009 to 2010. New lead monitoring requirements as well as a new lead National Ambient Air Quality Standard were established in 2010. As a result of these new rules six new lead monitors were established and one lead monitor was discontinued. The six new sites are Chicago - Perez Elementary, Sterling, Rockford, Bartonville, Mapleton and Decatur. The rural Nilwood lead monitor was discontinued. Access was lost to both the Springfield and Champaign ozone sites. Replacement sites were being investigated. USEPA continues to review various criteria pollutant monitoring requirements. It is expected that a number of new monitors will be established in the state in the coming years. Upcoming changes will affect ozone monitoring in 2012 and nitrogen dioxide and sulfur dioxide in 2013.

AIR QUALITY CONTROL REGIONS



65 - Bulington-Keokuk Interstate (Iowa-Illinois)
66 - East Central Illinois Intrastate
67 - Metropolitan Chicago Interstate (Illinois-Indiana)
68 - Metropolitan Dubuque Interstate (Iowa-Illinos-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-Illinos)
73 - Rockford-Janesville-Beloit Interstate (Illinois-Wisconsin)
74 - Southeast Illinois Intrastate
75 - West Central Illinois Intrastate

Statewide Air Monitoring Site Locations

ID	NAME	XCOORD	YCOORD	AIRS CODE
0	Alsip Village Garage	439028.14	4613506.98	170310001
1	Aurora Health Department	389528.14	4626729.16	170890007
2	Blue Island Eisenhower H.S.	442015.58	4612496.03	170312001
3	Braidwood Comm ED Maintenance	400173.37	4564033.85	171971011
4	Cary Grove H.S.	397480.49	4675110.16	171110001
5	Cicero IEPA Trailer	437539.20	4633977.22	170314002
6	Cicero Liberty School	437852.27	4634984.05	170316005
7	Des Plaines Regional Office Building	428543.56	4656797.86	170314007
8	Elgin Larsen Junior H.S.	394651.06	4656017.29	170890005
9	Elgin McKinley School	394074.74	4656164.53	170890003
10	Evanston Water Pumping Station	444223.82	4656857.88	170317002
11	Joliet Pershing Elementary School	406854.40	4597853.20	171971002
12	Joliet Water Plant West	401280.73	4590491.30	171970013
13	Lemont IEPA Trailer	417538.46	4613403.03	170311601
14	Lisle Morton Arboretum	410890.26	4629582.92	170436001
15	Lyons Township Village Hall	430877.97	4628036.70	170311016
16	Maywood 1500 Maybrook Drive Platform	431442.48	4635917.35	170316003
17	Maywood Comm ED Maintenance	431199.07	4635910.07	170316004
18	Maywood 4th District Court Building	431466.96	4635994.08	170316006
19	Midlothian Bremen H.S.	440382.95	4607283.07	170311901
20	Naperville City Hall	404209.07	4625007.66	170434002
21	Northbrook Water Plant	433953.24	4665668.78	170314201
22	Schiller Park IEPA Trailer	427390.48	4646283.31	170313103
23	Summit Graves Elementary School	433134.91	4626002.30	170313301
24	Waukegan North Fire Station	430740.20	4693056.11	170971002
25	Zion Camp Logan	433408.66	4702013.37	170971007
26	Chicago Carver H.S.	450923.96	4611812.47	170310060
27	Chicago Cermak Pump Station	446450.82	4635956.70	170310026
28	Chicago Comm ED	440680.96	4622421.39	170310075
29	Chicago Jardine Water Plant	449590.78	4638386.72	170310072
30	Chicago Willis Tower	447259.34	4636533.43	170310042
31	Chicago CTA Building	447307.81	4636384.48	170310063
32	Chicago South Water Filtration Plant	454702.37	4622802.04	170310032
33	Chicago Southeast Police Station	452696.62	4617465.15	170310050
34	Chicago Springfield Pump Station	440063.88	4640354.22	170310057
35	Chicago Taft H.S.	434390.00	4648367.48	170311003
36	Chicago University of Chicago	450011.00	4626726.33	170310064
37	Chicago Washington H.S.	455116.70	4615183.98	170310022
38	Chicago Mayfair Pump Station	437859.32	4646216.44	170310052
39	Bondville SWS Climate Station	382927.63	4434458.00	170191001
40	Carbondale Maintenance Building	305288.88	4177389.00	170770004
41	Champaign Booker T. Washington Elementary School	395236.97	4442222.50	170190004
42	Decatur IEPA Trailer	335319.94	4414769.00	171150013
43	Effingham Central Junior H.S.	366000.19	4325369.00	170491001
44	Houston Baldwin Site 2 - IEPA Trailer	255745.52	4229049.50	171570001
45	Knight Prairie Township	357489.72	4216177.00	170650002
46	Maryville Southwest Cable TV	242682.59	4290595.00	171191009
47	Mount Carmel Division Street	432441.06	4250177.00	171850001
48	Rural Wabash County South of State Route 1	427103.06	4247142.00	171851001
49	Nilwood IEPA Trailer	258043.88	4364498.50	171170002
50	Normal ISU Physical Plant	330837.53	4487250.50	171132003
51	Oglesby IEPA Trailer	328401.31	4573311.00	170990007
52	Peoria City Office Building	281616.22	4508336.50	171430037
53	Pekin Fire Station 3	275274.31	4492892.00	171790004
54	Peoria Commercial Building	279203.50	4508748.50	171430036
55	Peoria Fire Station 8	279707.38	4507329.50	171430024
56	Peoria Heights H.S.	281679.94	4513723.50	171431001
57	Loves Park Maple Elementary School	332121.41	4688981.00	172012003
58	Rockford City Hall	327811.72	4681606.50	172010011
59	Rockford Winnebago County Health Department	327392.16	4681107.00	172010013
60	Springfield Sewage Treatment Plant	278158.03	4408840.50	171670006
61	Springfield Public Health Warehouse	277126.53	4413724.50	171670010
62	Springfield Illinois Agriculture Building	273728.00	4412449.00	171670012
63	Springfield Federal Building	273312.59	4408832.50	171670008
64	Swansea Village Maintenance Building	239082.08	4268828.00	171634001
65	Bartonville Pump Station	276515.00	4503674.00	171430110
66	Decatur Mueller	333988.00	4414303.00	171150110
67	Mapleton Catepillar Plant	267429.00	4493834.00	171430210
68	Perez Elementary School	445348.00	4633988.00	170310110
69	Rockford J. Rubin and Company	327440.00	4678637.00	172010110
70	Sterling Sauk Medical Clinic	275084.00	4629822.00	171950110
71	Alton SIU Dental Clinic	747734.94	4309900.00	171192009
72	Alton Clara Barton Elementary School	747358.56	4308458.00	171190008
73	East St. Louis RAPS Trailer	747238.69	4277551.00	171630010
74	Edwardsville RAPS Trailer	757101.44	4298007.00	171192007
75	Granite City Fire Station 1	748727.63	4287873.00	171191007
76	Granite City Air Products	747522.88	4286713.50	171190010
77	Rock Island Arsenal	707169.75	4598886.00	171613002
78	South Roxana Grade School	755353.88	4301836.50	171191010
79	Wood River Water Treatment Plant	751122.13	4305295.00	171193007
80	Jerseyville Illini Junior H.S.	731349.00	4332451.50	170831001
81	Quincy John Wood Community College	642227.44	4419695.50	170010007
82	Granite City Gateway Medical	748300.44	4287426.50	171190024
83	Springfield Blandco Building	277036.77	4413835.99	171670013

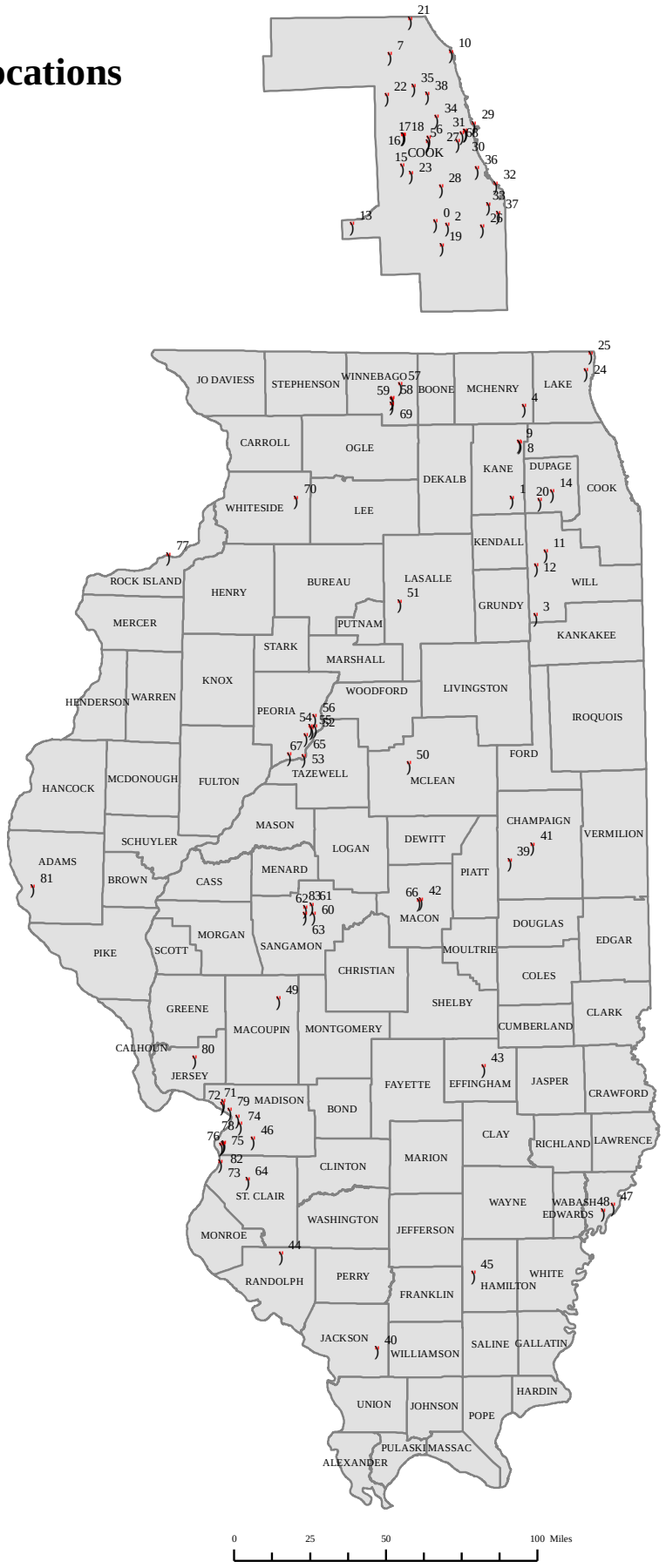


Table A3
2010 Site Directory

AQS ID	County	City	Address	CBSA / MSA / Area Represented	Latitude Longitude	Owner / Operator
17-001-0007	Adams	Quincy	John Wood Comm. College 1301 South 48th St.	Quincy, IL-MO	+39.91540937 -91.33586832	IL EPA
17-019-1001	Champaign	Bondville	State Water Survey Township Rd. 500 E.	Champaign-Urbana, IL	+40.05224171 -88.37254916	IL EPA/SWS
17-019-0004	Champaign	Champaign	Booker T. Wash. Elem Sch. 606 E. Grove	Champaign-Urbana, IL	+40.1237962 -88.22953098	IL EPA
17-031-0001	Cook	Alsip	Village Garage 4500 W. 123rd St.	Chicago-Naperville-Michigan City, IL-IN-WI	+41.6709919 -87.7324569	CCDEC
17-031-2001	Cook	Blue Island	Eisenhower High School 12700 Sacramento	Chicago-Naperville-Michigan City, IL-IN-WI	+41.66210943 -87.69646652	CCDEC
17-031-0060	Cook	Chicago	Carver High School 13100 S. Doty	Chicago-Naperville-Michigan City, IL-IN-WI	+41.65651756 -87.58957389	CCDEC
17-031-0026	Cook	Chicago	Cermak Pump Station 735 W. Harrison	Chicago-Naperville-Michigan City, IL-IN-WI	+41.87372041 -87.64532569	CCDEC
17-031-0076	Cook	Chicago	Com Ed Maintenance Bldg. 7801 Lawndale	Chicago-Naperville-Michigan City, IL-IN-WI	+41.75139998 -87.71348815	CCDEC
17-031-0063	Cook	Chicago	CTA Building 320 S. Franklin	Chicago-Naperville-Michigan City, IL-IN-WI	+41.877628 -87.635027	IL EPA
17-031-0072	Cook	Chicago	Jardine Water Plant 1000 E. Ohio	Chicago-Naperville-Michigan City, IL-IN-WI	+41.89581227 -87.60768329	IL EPA
17-031-0052	Cook	Chicago	Mayfair Pump Station 4850 Wilson Ave.	Chicago-Naperville-Michigan City, IL-IN-WI	+41.96548483 -87.74992806	CCDEC
17-031-0110	Cook	Chicago	Perez Elementary School 1241 19th St.	H.G. Kramer	+41.855917 -87.658419	CCDEC
17-031-0050	Cook	Chicago	Southeast Police Station 103rd & Luella	Chicago-Naperville-Michigan City, IL-IN-WI	+41.70756959 -87.56857386	CCDEC
17-031-0032	Cook	Chicago	South Water Filtration Plant 3300 E. Cheltenham Pl.	Chicago-Naperville-Michigan City, IL-IN-WI	+41.75583241 -87.54534967	CCDEC
17-031-0057	Cook	Chicago	Springfield Pump Station 1745 N. Springfield Ave.	Chicago-Naperville-Michigan City, IL-IN-WI	+41.91286212 -87.72272345	CCDEC
17-031-1003	Cook	Chicago	Taft High School 6545 W. Hurlbut St	Chicago-Naperville-Michigan City, IL-IN-WI	+41.98433233 -87.7920017	CCDEC
17-031-0064	Cook	Chicago	University of Chicago 5720 S. Ellis Ave.	Chicago-Naperville-Michigan City, IL-IN-WI	+41.79078688 -87.60164649	CCDEC
17-031-0022	Cook	Chicago	Washington High School 3535 E. 114th St.	Chicago-Naperville-Michigan City, IL-IN-WI	+41.68716544 -87.53931548	CCDEC
17-031-0042	Cook	Chicago	Willis Tower Wacker at Adams	Chicago-Naperville-Michigan City, IL-IN-WI	+41.87898018 -87.63555553	IL EPA
17-031-4002	Cook	Cicero	Cook County Trailer 1820 S. 51st Ave	Chicago-Naperville-Michigan City, IL-IN-WI	+41.85524313 -87.7524697	CCDEC
17-031-6005	Cook	Cicero	Liberty School 13th St. & 50th Ave.	Chicago-Naperville-Michigan City, IL-IN-WI	+41.86442642 -87.74890238	CCDEC
17-031-4007	Cook	Des Plaines	Regional Office Building 9511 W. Harrison St	Chicago-Naperville-Michigan City, IL-IN-WI	+42.06028469 -87.86322543	IL EPA

Table A3
2010 Site Directory

AQS ID	County	City	Address	CBSA / MSA / Area Represented	Latitude Longitude	Owner / Operator
17-031-7002	Cook	Evanston	Water Pumping Station 531 E. Lincoln	Chicago-Naperville-Michigan City, IL-IN-WI	+42.06185724 -87.67416716	IL EPA
17-031-1601	Cook	Lemont	Cook County Trailer 729 Houston	Chicago-Naperville-Michigan City, IL-IN-WI	+41.66812034 -87.99056969	CCDEC
17-031-1016	Cook	Lyons Township	Village Hall 50th St & Glencoe	Chicago-Naperville-Michigan City, IL-IN-WI	+41.80116701 -87.8319447	IL EPA
17-031-6003	Cook	Maywood	4th District Court Building 1500 Maybrook Dr.	Chicago-Naperville-Michigan City, IL-IN-WI	+41.87220158 -87.8261648	CCDEC
17-031-6006	Cook	Maywood	4th District Court Building 1500 Maybrook Dr.	Chicago-Naperville-Michigan City, IL-IN-WI	+41.8728972 -87.82587249	CCDEC
17-031-6004	Cook	Maywood	Com Ed Maintenance 1505 S. First Ave	Chicago-Naperville-Michigan City, IL-IN-WI	+41.87211684 -87.82908025	CCDEC
17-031-1901	Cook	Midlothian	Breman High School 15205 Crawford Ave	Chicago-Naperville-Michigan City, IL-IN-WI	+41.61503786 -87.71556004	CCDEC
17-031-4201	Cook	Northbrook	Northbrook Water Plant 750 Dundee Rd.	Chicago-Naperville-Michigan City, IL-IN-WI	+42.13999619 -87.79922692	IL EPA
17-031-3103	Cook	Schiller Park	IEPA Trailer 4743 Mannheim Rd.	Chicago-Naperville-Michigan City, IL-IN-WI	+41.96519348 -87.87626473	IL EPA
17-031-3301	Cook	Summit	Graves Elementary School 60th St. & 74th Ave.	Chicago-Naperville-Michigan City, IL-IN-WI	+41.78276601 -87.80537679	CCDEC
17-043-6001	DuPage	Lisle	Morton Arboretum Route 53	Chicago-Naperville-Michigan City, IL-IN-WI	+41.81304939 -88.0728269	IL EPA
17-043-4002	DuPage	Naperville	City Hall 400 S. Eagle St.	Chicago-Naperville-Michigan City, IL-IN-WI	+41.77107094 -88.15253365	IL EPA
17-049-1001	Effingham	Effingham	Central Junior High School Route 45 South	Effingham, IL	+39.06715932 -88.54893401	IL EPA
17-065-0002	Hamilton	Knight Prairie	Ten Mile Cree DNR Office State Route 14	Mt. Vernon, IL	+38.08215516 -88.6249434	IL EPA
17-077-0004	Jackson	Carbondale	Maintenance Building 607 E. College	Carbondale, IL	+37.72308571 -89.20928881	IL EPA/SIU
17-083-1001	Jerseyville	Jerseyville	Illini Junior High School Liberty St. & County Rd.	St. Louis, MO-IL	+39.11053947 -90.32407986	IL EPA
17-089-0007	Kane	Aurora	Health Department 1240 N. Highland	Chicago-Naperville-Michigan City, IL-IN-WI	+41.78471651 -88.32937361	IL EPA
17-089-0005	Kane	Elgin	Larsen Junior High School 665 Dundee Rd.	Chicago-Naperville-Michigan City, IL-IN-WI	+42.04914776 -88.27302929	IL EPA
17-089-0003	Kane	Elgin	McKinley School 258 Lovell St.	Chicago-Naperville-Michigan City, IL-IN-WI	+42.050403 -88.28001471	IL EPA
17-097-1002	Lake	Waukegan	North Fire Station Golf & Jackson Sts.	Chicago-Naperville-Michigan City, IL-IN-WI	+42.3867056 -87.84140622	IL EPA
17-097-1007	Lake	Zion	Camp Logan Illinois Beach State Park	Chicago-Naperville-Michigan City, IL-IN-WI	+42.4675733 -87.81004705	IL EPA
17-099-0007	La Salle	Oglesby	308 Portland Ave.	Ottawa-Streator, IL	+41.29301454 -89.04942498	IL EPA

Table A3
2010 Site Directory

AQS ID	County	City	Address	CBSA / MSA / Area Represented	Latitude Longitude	Owner / Operator
17-115-0013	Macon	Decatur	IEPA Trailer 2200 N. 22nd	Decatur, IL	+39.86683389 -88.92559445	IL EPA
17-115-0110	Macon	Decatur	Mueller 1226 E. Garfield	Mueller	+39.862542 -88.940894	IL EPA
17-117-0002	Macoupin	Nilwood	IEPA Trailer Heaton & Dubois	St. Louis, MO-IL	+39.39607533 -89.80973892	IL EPA
17-119-0008	Madison	Alton	Clara Barton Elementary School 409 Main St.	St. Louis, MO-IL	+38.89018605 -90.14803114	IL EPA
17-119-2009	Madison	Alton	SIU Dental Clinic 1700 Annex St.	St. Louis, MO-IL	+38.90308534 -90.14316803	IL EPA
17-119-2007	Madison	Edwardsville	RAPS Trailer Poag Rd.	St. Louis, MO-IL	+38.795235 -90.039756	IL EPA
17-119-0010	Madison	Granite City	Air Products 15th & Madison	St. Louis, MO-IL	+38.69443831 -90.15395426	IL EPA
17-119-1007	Madison	Granite City	Fire Station #1 23rd & Madison	St. Louis, MO-IL	+38.70453426 -90.13967484	IL EPA
17-119-0024	Madison	Granite City	Gateway Medical Center 2100 Madison Ave.	St. Louis, MO-IL	+38.7006315 -90.14476267	IL EPA
17-119-1009	Madison	Maryville	Southwest Cable TV 200 W. Division	St. Louis, MO-IL	+38.72657262 -89.95996251	IL EPA
17-119-1010	Madison	South Roxana	South Roxana Grade School Michigan St.	St. Louis, MO-IL	+38.82830334 -90.05843262	IL EPA
17-119-3007	Madison	Wood River	Water Treatment Plant 54 N. Walcott	St. Louis, MO-IL	+38.86066947 -90.10585111	IL EPA
17-111-0001	McHenry	Cary	Cary Grove High School 1st St. & Three Oaks Rd.	Chicago-Naperville-Michigan City, IL-IN-WI	+42.22144166 -88.24220734	IL EPA
17-113-2003	McLean	Normal	ISU Physical Plant Main & Gregory	Bloomington-Normal, IL	+40.51873537 -88.99689571	IL EPA
17-143-0110	Peoria	Bartonville	Pump Station Sanitation Rd.	Keystone Steel & Wire	+40.653703 -89.643375	IL EPA
17-143-0210	Peoria	Mapleton	Residential 9725 W. Wheeler Rd.	Caterpillar-Mapleton Plant	+40.562633 -89.747114	IL EPA
17-143-0037	Peoria	Peoria	City Office Building 613 N.E. Jefferson	Peoria, IL	+40.697007 -89.58473722	IL EPA
17-143-0036	Peoria	Peoria	Commercial Building 1005 N. University	Peoria, IL	+40.70007197 -89.61341375	IL EPA
17-143-0024	Peoria	Peoria	Fire Station #8 MacArthur & Hurlburt	Peoria, IL	+40.68742038 -89.60694277	IL EPA
17-143-1001	Peoria	Peoria Heights	Peoria Heights High School 508 E. Glen Ave.	Peoria, IL	+40.74550393 -89.58586902	IL EPA
17-157-0001	Randolph	Houston	IEPA Trailer Hickory Grove & Fallview	Houston, IL	+38.17627761 -89.78845862	IL EPA
17-161-3002	Rock Island	Rock Island	Rock Island Arsenal 32 Rodman Ave.	Davenport-Moline-Rock Island, IA-IL	+41.51472697 -90.51735026	IL EPA
17-167-0012	Sangamon	Springfield	Agricultural Building State Fair Grounds	Springfield, IL	+39.83192087 -89.64416359	IL EPA
17-167-0013	Sangamon	Springfield	Blandco Building 3050 Mayden Rd.	Springfield, IL	+39.845356 -89.597457	IL EPA
17-167-0008	Sangamon	Springfield	Federal Building 6th St. & Monroe	Springfield, IL	+39.7993092 -89.64760789	IL EPA
17-167-0010	Sangamon	Springfield	Public Health Warehouse 2875 N. Dirkson Parkway	Springfield, IL	+39.84412188 -89.60483919	IL EPA

Table A3
2010 Site Directory

AQS ID	County	City	Address	CBSA / MSA / Area Represented	Latitude Longitude	Owner / Operator
17-167-0006	Sangamon	Springfield	Sewage Treatment Plant 3300 Mechanicsburg Rd.	Springfield, IL	+39.80061377 -89.59122532	IL EPA
17-163-0010	St. Clair	East St. Louis	RAPS Trailer 13th & Tudor	St. Louis, MO-IL	+38.61203448 -90.16047663	IL EPA
17-163-4001	St. Clair	Swansea	Village Maintenance Building 1500 Caseyville Ave.	St. Louis, MO-IL	+38.52963143 -89.99284962	IL EPA
17-179-0004	Tazewell	Pekin	Fire Station #3 272 Derby	Peoria, IL	+40.55646017 -89.65402807	IL EPA
17-185-0001	Wabash	Mount Carmel	Division St.	Gibson County, IN- Mt. Carmel, IL	+38.397276 -87.773631	Indiana
17-185-1001	Wabash	Rural Wabash County	South of State Route 1	Gibson County, IN- Wabash County, IL	+38.369498 -87.834466	Indiana
17-195-0110	Whiteside	Sterling	Sauk Medical Clinic 705 West 3rd St.	Sterling Steal Co.	+41.788383 -89.706728	IL EPA
17-197-1011	Will	Braidwood	Com Ed Training Center 36400 S. Essex Rd.	Chicago-Naperville- Michigan City, IL-IN- WI	+41.22153707 -88.19096718	IL EPA
17-197-1002	Will	Joliet	Pershing Elementary School Midland & Campbell Sts.	Chicago-Naperville- Michigan City, IL-IN- WI	+41.52688509 -88.11647381	IL EPA
17-197-0013	Will	Joliet	Water Plant West Route 6 & Young Rd.	Chicago-Naperville- Michigan City, IL-IN- WI	+41.45996344 -88.18201915	IL EPA
17-201-2001	Winnebago	Loves Park	Maple Elementary School 1405 Maple Ave.	Rockford, IL	+42.33498222 -89.0377748	IL EPA
17-201-0011	Winnebago	Rockford	City Hall 425 E. State	Rockford, IL	+42.26767353 -89.08785092	IL EPA
17-201-0013	Winnebago	Rockford	Health Department 201 Division St.	Rockford, IL	+42.26308105 -89.09276716	IL EPA
17-201-0110	Winnebago	Rockford	J. Rubin & Company 305 Peoples Ave.	Gunite Corporation	+42.240867 -89.091467	IL EPA

Table A4
2010 Monitoring Directory

AQS ID	City	CO	CO2	NO2	Ozone	PM10	PM2.5	PM2.5 AQI	PM2.5 Speciation	SO2	VOC	Toxics	TSP Pb, Metals	Wind System	Solar	Meteorological
17-001-0007	Quincy				■		■							■		
17-019-0004	Champaign				■		■									
17-019-1001	Bondville						■									
17-031-0001	Alsip				■	■		■					■	■		
17-031-0022	Chicago Washington High School					C	■	■					■			
17-031-0026	Chicago Cermak Pump Station												■			
17-031-0032	Chicago South Water Filtration				■											
17-031-0042	Chicago Willis Tower				■											
17-031-0050	Chicago Southeast Police Station						■			■						
17-031-0052	Chicago Mayfair Pump Station						■						■			
17-031-0057	Chicago Springfield Pump Station						■	■	■							
17-031-0060	Chicago Carver High School					■										
17-031-0063	Chicago CTA Building	■		■						■						
17-031-0064	Chicago University of Chicago				■										■	
17-031-0072	Chicago Jardine Water Plant			■	■									■	■	■
17-031-0076	Chicago Com Ed Maintenance			■	■		■	■	■	■				■		
17-031-0110	Chicago Perez Elementary												■			
17-031-1003	Chicago Taft High School				■											
17-031-1016	Lyons Township					C	■									
17-031-1601	Lemont				■					■						
17-031-1901	Midlothian					■										
17-031-2001	Blue Island					■	■									

■ Active Monitor
Site/Monitor Installed
Site/Monitor Removed
C = Continuous PM10
T = Trace level monitor

Table A4
2010 Monitoring Directory

AQS ID	City	CO	CO2	NO2	Ozone	PM10	PM2.5	PM2.5 AQI	PM2.5 Speciation	SO2	VOC	Toxics	TSP Pb, Metals	Wind System	Solar	Meteorological
17-031-3103	Schiller Park															
17-031-3301	Summit															
17-031-4002	Cicero Cook County Trailer															
17-031-6005	Cicero Liberty School															
17-031-4007	Des Plaines															
17-031-4201	Northbrook[1]	T								T						
17-031-6003	Maywood 4th District Court															
17-031-6004	Maywood Com Ed Maintenance															
17-031-6006	Maywood 4th District Court															
17-031-7002	Evanston															
17-043-4002	Naperville															
17-043-6001	Lisle															
17-049-1001	Effingham															
17-065-0002	Knight Prairie															
17-077-0004	Carbondale															
17-083-1001	Jerseyville															
17-089-0003	Elgin McKinley School															
17-089-0005	Elgin Larsen Jr. High School															
17-089-0007	Aurora															
17-097-1002	Waukegan															
17-097-1007	Zion															
17-099-0007	Oglesby					C										

Active Monitor | Site/Monitor Installed | Site/Monitor Removed

C = Continuous PM10
T = Trace level monitor
1 = Northbrook also measures continuous mercury

Table A4
2010 Monitoring Directory

AQS ID	City	CO	CO2	NO2	Ozone	PM10	PM2.5	PM2.5 AQI	PM2.5 Speciation	SO2	VOC	Toxics	TSP Pb, Metals	Wind System	Solar	Meteorological
17-111-0001	Cary															
17-113-2003	Normal															
17-115-0013	Decatur IEPA Trailer															
17-115-0110	Decatur Mueller															
17-117-0002	Nilwood															
17-119-0008	Alton Clara Barton Elementary															
17-119-2009	Alton SIU Dental Clinic															
17-119-0010	Granite City Air Products															
17-119-0024	Granite City Gateway Medical Center															
17-119-1007	Granite City Fire Station #1					C										
17-119-1009	Maryville															
17-119-1010	South Roxana															
17-119-2007	Edwardsville															
17-119-3007	Wood River															
17-143-0024	Peoria Fire Station #8															
17-143-0036	Peoria Commercial Building															
17-143-0037	Peoria City Office Building															
17-143-0110	Bartonville															
17-143-0210	Mapleton															
17-143-1001	Peoria Heights															
17-157-0001	Houston															
17-161-3002	Rock Island															

Active Monitor	Site/Monitor Installed	Site/Monitor Removed	C = Continuous PM10 T = Trace level monitor

Table A4
2010 Monitoring Directory

AQS ID	City	CO	CO2	NO2	Ozone	PM10	PM2.5	PM2.5 AQI	PM2.5 Speciation	SO2	VOC	Toxics	TSP Pb, Metals	Wind System	Solar	Meteorological
17-163-0010	East St. Louis															
17-163-4001	Swansea															
17-167-0006	Springfield Sewage Treatment Plant															
17-167-0008	Springfield Federal Building															
17-167-0010	Springfield Public Health															
17-167-0012	Springfield Agricultural Building															
17-167-0013	Springfield Blandco Building															
17-179-0004	Pekin															
17-185-0001	Mount Carmel															
17-185-1001	Rural Wabash County															
17-195-0110	Sterling															
17-197-0013	Joliet Water Plant West															
17-197-1002	Joliet Pershing Elementary															
17-197-1011	Braidwood															
17-201-0011	Rockford City Hall															
17-201-0013	Rockford Health Department															
17-201-0110	Rockford J. Rubin & Company															
17-201-2001	Loves Park															

Active Monitor	Site/Monitor Installed	Site/Monitor Removed	C = Continuous PM10 T = Trace level monitor

APPENDIX B
AIR QUALITY DATA SUMMARY TABLES

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.

PM_{10} 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 PM_{10} 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 2010. 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.

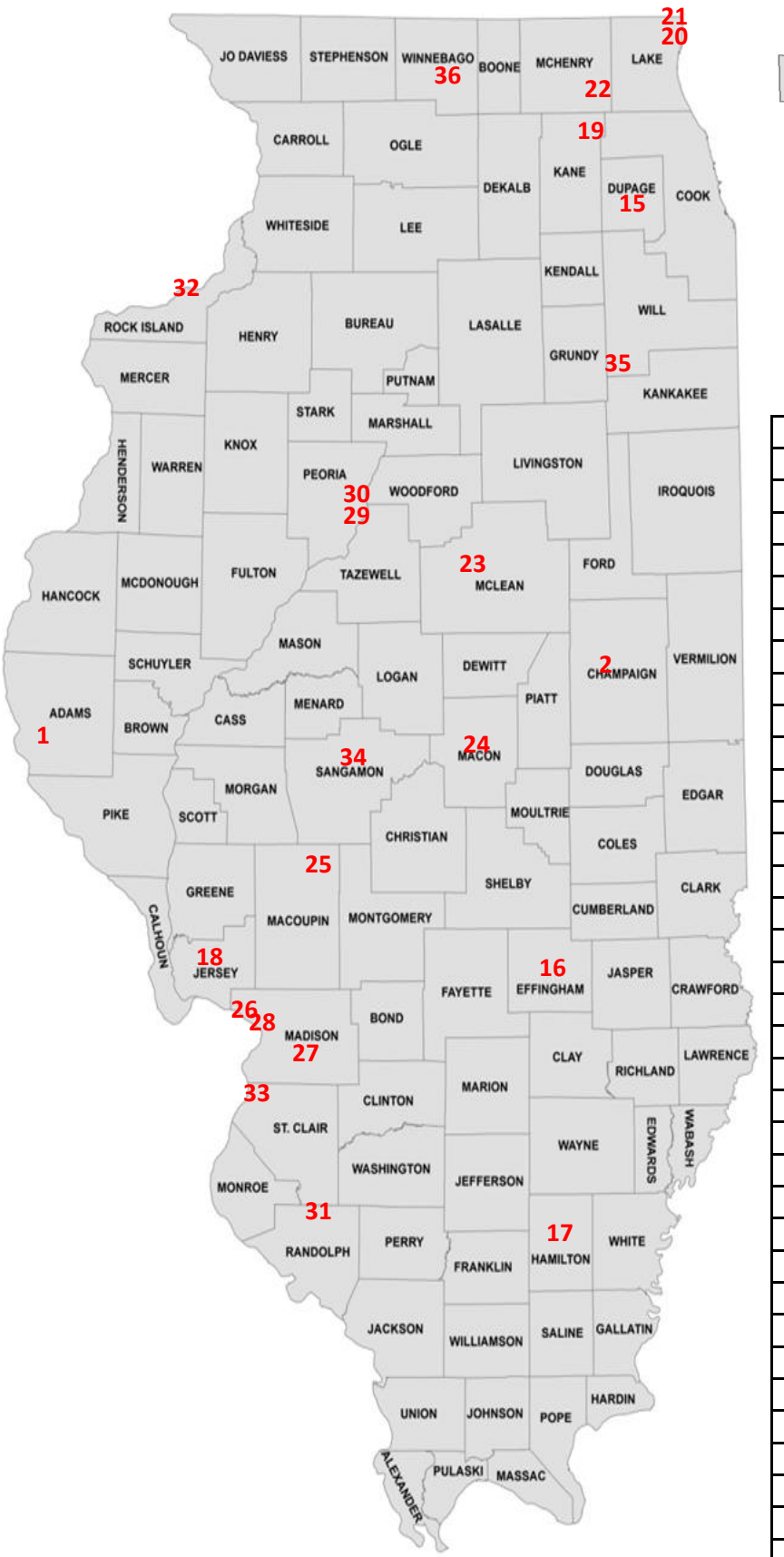
For summary purposes, the data is expressed in the number of figures to which the raw data is validated. Extra figures may be carried in the averaging technique, but the result is rounded to the appropriate number of figures. For example, the values 9, 9, 10 are averaged to give 9; whereas the values 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.

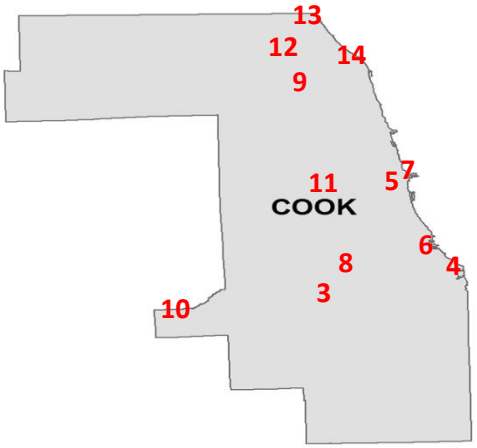
In comparing data to the various air quality standards, the data are implicitly rounded to the number of significant figures specified by that standard. For example, to exceed the 0.12 ppm hourly ozone standard, an hourly value must be 0.125 ppm or higher, to exceed the 9 ppm CO 8-hour standard, an 8-hour 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 (SO_2) 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 (PM_{10}) 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 98^{th} 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 2010. 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.

2010 Ozone Monitoring Sites





	Site ID	Site Name
1.	170010007	Quincy
2.	170190004	Champaign
3.	170310001	Alsip
4.	170310032	Chicago – South Water Filtration Plant
5.	170310042	Chicago – Willis Tower
6.	170310064	Chicago – University of Chicago
7.	170310072	Chicago – Jardine Water Plant
8.	170310076	Chicago – Com Ed Maintenance Bldg.
9.	170311003	Chicago – Taft High School
10.	170311601	Lemont
11.	170314002	Cicero
12.	170314007	Des Plaines
13.	170314201	Northbrook
14.	170317002	Evanston
15.	170436001	Lisle
16.	170491001	Effingham
17.	170650002	Knight Prairie
18.	170831001	Jerseyville
19.	170890005	Elgin
20.	170971002	Waukegan
21.	170971007	Zion
22.	171110001	Cary
23.	171132003	Normal
24.	171150013	Decatur
25.	171170002	Nilwood
26.	171190008	Alton
27.	171191009	Maryville
28.	171193007	Wood River
29.	171430024	Peoria
30.	171431001	Peoria Heights
31.	171570001	Houston
32.	171613002	Rock Island
33.	171630010	East St. Louis
34.	171670010	Springfield
35.	171971011	Braidwood
36.	172012001	Loves Park

Table B1
2010 1-Hour Ozone Exceedances

EXCEEDANCES OF THE FORMER 1-HOUR PRIMARY STANDARD OF 0.12 PPM		
Date	**City**	**Concentration**
None	None	None
Total Over 0.12 ppm	0	
Total Days Over 0.12 ppm	0	

Table B2
2010 8-Hour Ozone Exceedances

EXCEEDANCES OF THE 8-HOUR PRIMARY STANDARD OF 0.075 PPM		
Date	**City**	**Concentration**
4/11	Alton	0.076
	Maryville	0.079
4/12	Knight Prairie	0.076
4/13	Alton	0.078
	Knight Prairie	0.076
	Maryville	0.077
	Nilwood	0.076
5/24	Zion	0.078
5/26	Lemont	0.077
5/30	Chicago – South Water Filtration Plant	0.081
	Northbrook	0.077
	Waukegan	0.079
	Zion	0.088
6/1	Alton	0.077
6/20	East St. Louis	0.082
	Maryville	0.081
6/25	Alton	0.076
7/2	Quincy	0.077
7/3	Alton	0.086
	Northbrook	0.082
	Waukegan	0.079
	Zion	0.084
7/13	Alton	0.078
7/17	Alton	0.077
8/1	Chicago – Taft High School	0.077
	Chicago – University of Chicago	0.076
8/3	Alton	0.080
8/8	Alton	0.080
8/9	Alton	0.078
8/10	Alsip	0.077
	Chicago – Jardine Water Plant	0.076
	Elgin	0.077
	Lemont	0.077
8/11	Alton	0.086
	East St. Louis	0.085
	Wood River	0.081
8/12	Lemont	0.081
8/14	Alton	0.076
8/19	Evanston	0.081
	Zion	0.078
10/9	Alton	0.077
Total Over 0.075 ppm	41	
Total Days Over 0.075 ppm	23	

Table B3
2010 Ozone Highs

AQS ID	City	Number Of Days 8hr Greater Than 0.075 ppm			4th Highest Samples 1hr (ppm)				4th Highest Samples 8hr (ppm)			
		2010	2009	2008								
17-001-0007	Quincy	1	0	0	0.085	0.075	0.073	0.072	0.077	0.070	0.068	0.067
17-019-0004	Champaign	0	0	0	-	-	-	-	-	-	-	-
17-031-0001	Alsip	1	0	0	0.091	0.086	0.083	0.079	0.077	0.074	0.073	0.073
17-031-0032	Chicago South Water Filtration	1	0	0	0.091	0.086	0.084	0.084	0.081	0.075	0.074	0.074
17-031-0064	Chicago University of Chicago	1	0	0	0.086	0.086	0.084	0.083	0.076	0.075	0.072	0.071
17-031-0072	Chicago Jardine Water Plant	1	0	0	0.081	0.081	0.081	0.080	0.076	0.075	0.075	0.071
17-031-0076	Chicago Com Ed Maintenance	0	0	0	0.078	0.075	0.074	0.074	0.072	0.069	0.069	0.068
17-031-1003	Chicago Taft High School	1	0	0	0.089	0.081	0.078	0.077	0.077	0.071	0.071	0.070
17-031-1601	Lemont	3	1	0	0.100	0.097	0.097	0.079	0.081	0.077	0.077	0.073
17-031-4002	Cicero Cook County Trailer	0	0	0	0.081	0.079	0.077	0.074	0.071	0.069	0.068	0.068
17-031-4007	Des Plaines	0	0	0	0.079	0.076	0.072	0.069	0.069	0.066	0.065	0.064
17-031-4201	Northbrook	2	0	0	0.091	0.085	0.084	0.083	0.082	0.077	0.074	0.072
17-031-7002	Evanston	1	1	0	0.091	0.081	0.075	0.074	0.081	0.070	0.069	0.067
17-043-6001	Lisle	0	0	0	0.087	0.082	0.077	0.070	0.070	0.066	0.065	0.064
17-049-1001	Effingham	0	0	0	0.083	0.079	0.078	0.077	0.072	0.072	0.072	0.072
17-065-0002	Knight Prairie	2	0	0	0.081	0.081	0.079	0.079	0.076	0.076	0.075	0.075
17-083-1001	Jerseyville	0	0	1	0.100	0.092	0.088	0.086	0.073	0.073	0.072	0.072
17-089-0005	Elgin Larsen Jr. High School	1	0	0	0.097	0.081	0.079	0.077	0.077	0.072	0.071	0.069
17-097-1002	Waukegan	2	0	0	0.097	0.087	0.084	0.084	0.079	0.079	0.074	0.074
17-097-1007	Zion	4	2	0	0.100	0.092	0.092	0.090	0.088	0.084	0.078	0.078
17-111-0001	Cary	0	0	0	0.086	0.079	0.076	0.072	0.075	0.068	0.065	0.065
17-113-2003	Normal	0	0	0	0.078	0.076	0.075	0.072	0.072	0.070	0.068	0.066
17-115-0013	Decatur IEPA Trailer	0	0	0	0.079	0.077	0.076	0.074	0.069	0.069	0.069	0.069
17-117-0002	Nilwood	1	0	0	0.086	0.085	0.081	0.080	0.076	0.073	0.072	0.071
17-119-0008	Alton Clara Barton School	13	1	2	0.110	0.104	0.096	0.096	0.086	0.086	0.080	0.080

Table B3
2010 Ozone Highs

AQS ID	City	Number Of Days 8hr Greater Than 0.075 ppm			4th Highest Samples 1hr (ppm)				4th Highest Samples 8hr (ppm)			
		2010	2009	2008								
17-119-1009	Maryville	3	2	2	0.103	0.098	0.095	0.089	0.081	0.079	0.077	0.074
17-119-3007	Wood River	1	1	0	0.103	0.094	0.082	0.081	0.081	0.075	0.072	0.070
17-143-0024	Peoria Fire Station #8	0	0	0	0.069	0.066	0.064	0.064	0.062	0.060	0.059	0.059
17-143-1001	Peoria Heights	0	0	0	0.078	0.077	0.074	0.074	0.072	0.072	0.071	0.069
17-157-0001	Houston	0	0	0	0.071	0.071	0.071	0.071	0.069	0.068	0.067	0.065
17-161-3002	Rock Island	0	0	0	0.067	0.064	0.064	0.063	0.058	0.058	0.058	0.057
17-163-0010	East St. Louis	2	1	0	0.115	0.097	0.095	0.088	0.085	0.082	0.075	0.072
17-167-0013	Springfield	0	0	0	0.084	0.083	0.083	0.078	0.072	0.070	0.069	0.069
17-197-1011	Braidwood	0	0	0	0.080	0.078	0.071	0.069	0.075	0.067	0.066	0.065
17-201-2001	Loves Park	0	0	0	0.071	0.071	0.069	0.069	0.066	0.064	0.064	0.063
Statewide Average					0.087	0.082	0.079	0.077	0.075	0.072	0.070	0.069
Total Over 0.075 ppm		41	9	5								
Total Days Over 0.075 ppm		23	4	4								

Table B4
2010 Ozone Design Values

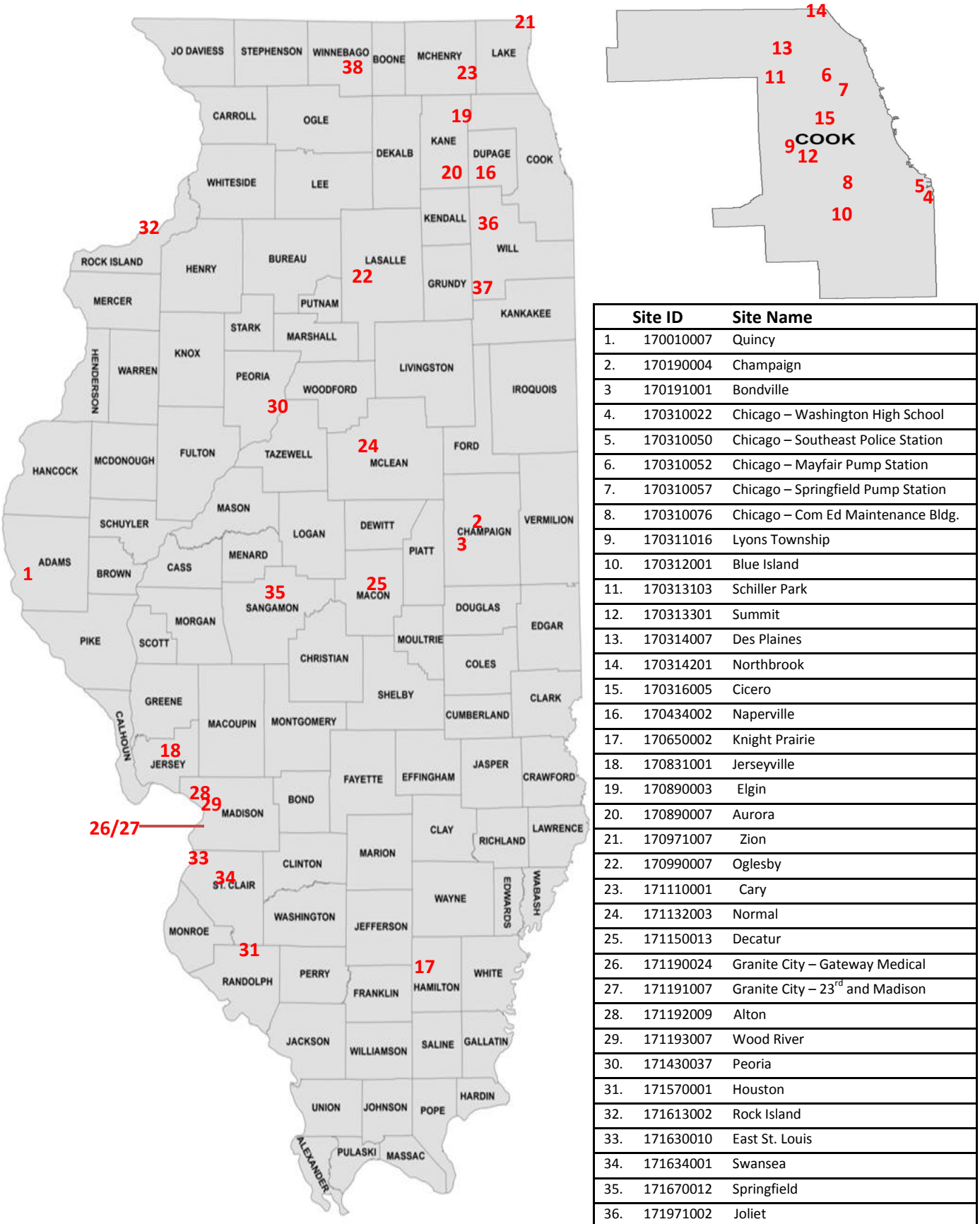
AQS ID	City	4th High 8-hour Concentrations (ppm)					Design Values* (ppm)		
		2010	2009	2008	2007	2006	2008-2010	2007-2009	2006-2008
17-001-0007	Quincy	0.067	0.061	0.065	0.075	0.071	0.064	0.067	0.070
17-019-0004	Champaign	-	0.065	0.060	0.071	0.065	0.062	0.065	0.065
17-031-0001	Alsip	0.073	0.069	0.066	0.085	0.078	0.069	0.073	**0.076**
17-031-0032	Chicago South Water Filtration	0.074	0.065	0.067	0.082	0.075	0.068	0.071	0.074
17-031-0064	Chicago University of Chicago	0.071	0.060	0.063	0.079	0.070	0.064	0.067	0.070
17-031-0072	Chicago Jardine Water Plant	0.071	0.062	0.063	0.075	0.065	0.065	0.066	0.067
17-031-0076	Chicago Com Ed Maintenance	0.068	0.067	0.066	0.080	0.075	0.067	0.071	0.073
17-031-1003	Chicago Taft High School	0.070	0.064	0.064	0.079	0.077	0.066	0.069	0.073
17-031-1601	Lemont	0.073	0.067	0.071	0.085	0.070	0.070	0.074	0.075
17-031-4002	Cicero Cook County Trailer	0.068	0.067	0.060	0.068	0.060	0.065	0.065	0.062
17-031-4007	Des Plaines	0.064	0.057	0.057	0.078	0.065	0.059	0.064	0.066
17-031-4201	Northbrook	0.072	0.069	0.065	0.076	0.068	0.068	0.070	0.069
17-031-7002	Evanston	0.067	0.064	0.058	0.080	0.072	0.063	0.067	0.070
17-043-6001	Lisle	0.064	0.059	0.057	0.072	0.062	0.060	0.062	0.063
17-049-1001	Effingham	0.072	0.067	0.063	0.078	0.067	0.067	0.069	0.069
17-065-0002	Knight Prairie	0.075	0.064	0.066	0.076	0.066	0.068	0.068	0.069
17-083-1001	Jerseyville	0.072	0.068	0.069	0.075	0.075	0.069	0.070	0.073
17-089-0005	Elgin Larsen Jr. High School	0.069	0.068	0.061	0.075	0.062	0.066	0.068	0.066
17-097-1002	Waukegan	0.074	0.057	0.063	0.081	0.071	0.064	0.067	0.071
17-097-1007	Zion	0.078	0.075	0.069	0.080	0.068	0.074	0.074	0.072
17-111-0001	Cary	0.065	0.066	0.065	0.074	0.057	0.065	0.068	0.065
17-113-2003	Normal	0.066	0.071	0.067	0.075	0.072	0.068	0.071	0.071
17-115-0013	Decatur IEPA Trailer	0.069	0.067	0.066	0.077	0.071	0.067	0.070	0.071
17-117-0002	Nilwood	0.071	0.064	0.065	0.075	0.070	0.066	0.068	0.070
17-119-0008	Alton Clara Barton Elementary	0.080	0.067	0.068	0.081	0.079	0.071	0.072	**0.076**

Table B4
2010 Ozone Design Values

AQS ID	City	4th High 8-hour Concentrations (ppm)					Design Values* (ppm)		
		2010	2009	2008	2007	2006	2008-2010	2007-2009	2006-2008
17-119-1009	Maryville	0.074	0.071	0.070	0.087	0.077	0.072	**0.077**	**0.078**
17-119-3007	Wood River	0.070	0.066	0.067	0.086	0.077	0.067	0.073	**0.076**
17-143-0024	Peoria Fire Station #8	0.059	0.053	0.060	0.074	0.067	0.057	0.062	0.067
17-143-1001	Peoria Heights	0.069	0.069	0.067	0.081	0.070	0.068	0.072	0.072
17-157-0001	Houston	0.065	0.059	0.065	0.079	0.072	0.063	0.067	0.072
17-161-3002	Rock Island	0.057	0.058	0.058	0.071	0.070	0.057	0.062	0.066
17-163-0010	East St. Louis	0.072	0.069	0.064	0.077	0.077	0.068	0.070	0.072
17-167-0013	Springfield	0.069	0.061	0.059	0.072	0.066	0.063	0.064	0.065
17-197-1011	Braidwood	0.065	0.063	0.060	0.071	0.068	0.062	0.064	0.066
17-201-2001	Loves Park	0.063	0.067	0.060	0.073	0.063	0.063	0.066	0.065
Statewide Average		0.069	0.064	0.063	0.077	0.069	0.065	0.068	0.069

*The design value is the 3-year average of the 4th high concentration. Design value greater than 0.075 ppm is a violation of the National Ambient Air Quality Standard.

2010 $PM_{2.5}$ FRM Monitoring Sites



	Site ID	Site Name
1.	170010007	Quincy
2.	170190004	Champaign
3	170191001	Bondville
4.	170310022	Chicago – Washington High School
5.	170310050	Chicago – Southeast Police Station
6.	170310052	Chicago – Mayfair Pump Station
7.	170310057	Chicago – Springfield Pump Station
8.	170310076	Chicago – Com Ed Maintenance Bldg.
9.	170311016	Lyons Township
10.	170312001	Blue Island
11.	170313103	Schiller Park
12.	170313301	Summit
13.	170314007	Des Plaines
14.	170314201	Northbrook
15.	170316005	Cicero
16.	170434002	Naperville
17.	170650002	Knight Prairie
18.	170831001	Jerseyville
19.	170890003	Elgin
20.	170890007	Aurora
21.	170971007	Zion
22.	170990007	Oglesby
23.	171110001	Cary
24.	171132003	Normal
25.	171150013	Decatur
26.	171190024	Granite City – Gateway Medical
27.	171191007	Granite City – 23rd and Madison
28.	171192009	Alton
29.	171193007	Wood River
30.	171430037	Peoria
31.	171570001	Houston
32.	171613002	Rock Island
33.	171630010	East St. Louis
34.	171634001	Swansea
35.	171670012	Springfield
36.	171971002	Joliet
37.	171971011	Braidwood
38.	172010013	Rockford

Table B5
2010 24-Hour PM2.5 Exceedances

EXCEEDANCES OF THE 24-HOUR PRIMARY STANDARD OF 35 ug/m3		
Date	**City**	**Concentration (ug/m3)**
2/1	Chicago – Washington High School	41.5
	Chicago – Southeast Police Station	40.5
	Chicago – Mayfair Pump Station	39.2
	Des Plaines	37.1
	Lyons Township	36.4
2/2	Chicago – Mayfair Pump Station	47.5
	Lyons Township	41.5
	Chicago – Com Ed Maintenance Bldg.	41.1
2/3	Chicago – Mayfair Pump Station	43.5
	Lyons Township	42.7
2/4	Chicago – Mayfair Pump Station	48.1
	Lyons Township	46.3
	Summit	43.6
	Chicago – Com Ed Maintenance Bldg.	43.5
	Blue Island	42.5
	Rockford	42.0
	Normal	39.9
	Chicago – Southeast Police Station	39.1
	Granite City – 23rd & Madison	38.1
	Des Plaines	37.0
	Swansea	36.5
	Granite City – Gateway Medical Center	35.8
2/20	Joliet	39.8
3/8	Chicago – Mayfair Pump Station	49.0
	Lyons Township	45.1
3/9	Rockford	39.8
	Granite City – 23rd & Madison	39.0
	Lyons Township	38.5
	Cicero	36.8
	Summit	36.3
12/21	Chicago – Mayfair Pump Station	39.9
Total Over 35 ug/m3	31	
Total Days Over 35 ug/m3	8	

Table B6
2010 PM2.5 Highs

AQS ID	City	Total Samples	Samples Greater Than 35 ug/m3			Highest Samples							
			2010	2009	2008	1st	2nd	3rd	4th	5th	6th	7th	8th
17-001-0007	Quincy	58	0	0	0	23.1	22.6	22.2	20.0	19.5	17.6	17.2	15.6
17-019-0004	Champaign	16	0	0	0	29.2	21.7	19.8	19.4	16.7	15.3	14.0	12.4
17-019-1001	Bondville	56	0	0	0	28.6	20.6	19.8	19.4	16.7	15.3	14	12.4
17-031-0022	Chicago Washington High School	61	1	0	0	41.5	30.3	29.7	26.7	26.4	24.5	23.5	23.4
17-031-0050	Chicago Southeast Police Station	117	2	1	0	40.5	39.1	31.8	26.9	26.9	25.0	24.6	24.3
17-031-0052	Chicago Mayfair Pump Station	354	6	1	3	49.0	48.1	47.5	43.5	39.9	39.2	34.0	33.8
17-031-0057	Chicago Springfield Pump Station	109	0	1	1	33.3	29.6	28.6	26.5	25.8	24.7	22.7	21.0
17-031-0076	Chicago Com Ed Maintenance	115	2	0	0	43.5	41.1	31.0	27.7	25.8	24.0	23.8	22.5
17-031-1016	Lyons Township	342	6	3	1	46.3	45.1	42.7	41.5	38.5	36.4	35.3	32.4
17-031-2001	Blue Island	116	1	1	1	42.5	27.0	25.8	24.1	24.6	22.8	22.7	20.8
17-031-3103	Schiller Park	105	0	2	1	33.6	26.6	25.9	25.7	25.2	24.7	23.0	22.0
17-031-3301	Summit	120	2	1	0	43.6	36.3	35.0	27.1	26.4	22.7	22.4	21.7
17-031-6005	Cicero Liberty School	109	1	1	1	36.8	29.6	27.1	26.3	26.0	23.3	23.2	22.7
17-031-4007	Des Plaines	121	2	2	1	37.1	37.0	28.5	26.8	26.3	24.9	21.8	21.3
17-031-4201	Northbrook	119	0	0	0	34.1	33.5	30.1	28.4	23.0	20.8	19.8	19.6
17-043-4002	Naperville	59	0	0	1	30.2	28.4	25.5	22.4	20.4	20.4	20.0	19.9
17-065-0002	Knight Prairie	60	0	0	1	27.3	25.3	23.5	23.4	18.9	18.2	17.7	17.4
17-083-1001	Jerseyville	56	0	0	0	23.4	21.4	19.5	17.5	17.3	17.0	16.7	16.6
17-089-0003	Elgin McKinley School	61	0	0	1	33.6	32.3	24.2	22.6	21.1	20.8	17.3	17.1
17-089-0007	Aurora	59	0	0	0	32.5	32.4	24.4	23.6	23.4	20.9	19.5	19.1
17-097-1007	Zion	61	0	0	0	31.6	21.8	20.4	20.3	20.1	19.6	19.3	17.3
17-099-0007	Oglesby	113	0	0	0	32.0	29.8	29.0	25.2	24.7	22.6	22.3	20.2
17-111-0001	Cary	113	0	0	0	34.4	29.8	29.4	23.5	23.0	22.5	22.2	20.9
17-113-2003	Normal	117	1	0	0	39.9	26.2	25.0	24.3	23.3	19.8	19.4	18.9
17-115-0013	Decatur IEPA Trailer	51	0	0	0	26.0	22.1	21.8	19.4	19.3	18.3	18.2	17.8

Table B6
2010 PM2.5 Highs

AQS ID	City	Total Samples	Samples Greater Than 35 ug/m3			Highest Samples							
			2010	2009	2008	1st	2nd	3rd	4th	5th	6th	7th	8th
17-119-2009	Alton SIU Dental Clinic	57	0	0	0	29.3	25.0	24.7	23.7	23.2	21.7	21.7	20.6
17-119-0024	Granite City Gateway Medical Center	114	1	0	0	35.8	29.0	28.6	27.3	26.3	25.6	25.2	24.6
17-119-1007	Granite City Fire Station #1	335	2	2	2	39.0	38.1	32.4	31.9	30.0	29.3	29.2	28.8
17-119-3007	Wood River	108	0	0	0	24.6	24.2	22.1	21.8	21.3	20.9	20.9	19.3
17-143-0037	Peoria City Office Building	121	0	0	0	32.4	27.6	26.0	25.9	25.6	24.6	23.8	23.1
17-157-0001	Houston	55	0	0	0	20.6	17.2	16.9	16.7	16.7	16.5	14.8	14.8
17-161-3002	Rock Island	50	0	0	0	24.5	22.0	20.2	20.1	19.5	18.4	18.2	18.0
17-163-0010	East St. Louis	56	0	0	0	23.3	22.0	21.6	20.4	19.9	19.7	19.4	19.1
17-163-4001	Swansea	113	1	0	0	36.5	24.1	23.9	21.9	21.7	21.2	21.0	20.4
17-167-0012	Springfield Agricultural Building	116	0	0	0	33.0	25.7	24.2	23.9	23.1	22.3	20.5	20.0
17-197-1002	Joliet Pershing Elementary	58	1	0	0	39.8	28.3	26.6	24.7	23.1	20.6	20.1	20.1
17-197-1011	Braidwood	60	0	0	0	28.7	24.1	20.5	20.1	19.1	18.2	18.1	17.3
17-201-0013	Rockford Health Department	106	2	1	1	42.0	39.8	24.6	24.3	22.2	22.1	19.5	17.6
Statewide Average						33.8	29.1	26.3	24.6	23.5	22.2	21.3	20.5
Total Samples Over 35 ug/m3			31	16	15								
Total Sites Over 35 ug/m3			15	11	12								
Total Days Over 35 ug/m3			8	6	9								

Table B7
2010 PM2.5 24-Hour Design Values

AQS ID	City	98th Percentile Concentrations (ug/m3)					Design Values* (ug/m3)		
		2010	2009	2008	2007	2006	2008-2010	2007-2009	2006-2008
17-001-0007	Quincy	22.6	17.3	19.8	28.9	-	19.9	22.0	24.4
17-019-0004	Champaign	29.2	19.3	27.1	33.2	25.6	25.2	26.5	28.6
17-019-1001	Bondville	20.6	20.0	25.9	33.5	23.0	22.2	26.5	27.5
17-031-0022	Chicago Washington High School	30.3	26.8	31.2	35.7	27.0	29.4	31.2	31.3
17-031-0050	Chicago Southeast Police Station	31.8	24.9	27.3	33.6	26.6	28.0	28.6	29.2
17-031-0052	Chicago Mayfair Pump Station	33.8	32.4	27.8	39.4	31.6	31.3	33.2	32.9
17-031-0057	Chicago Springfield Pump Station	28.6	32.5	27.5	38.9	27.7	29.5	33.0	31.4
17-031-0076	Chicago Com Ed Maintenance	31.0	26.2	29.7	37.2	29.0	29.0	31.0	32.0
17-031-1016	Lyons Township	35.3	30.8	33.9	36.8	32.9	33.3	33.8	34.5
17-031-2001	Blue Island	25.8	27.2	29.5	35.1	28.1	27.5	30.6	30.9
17-031-3103	Schiller Park	25.9	30.0	31.3	36.6	30.0	29.1	32.6	32.6
17-031-3301	Summit	35.0	31.0	29.3	36.7	27.4	31.8	32.3	31.1
17-031-6005	Cicero Liberty School	27.1	27.7	34.1	36.9	29.2	29.6	32.9	33.4
17-031-4007	Des Plaines	28.5	29.4	25.7	33.9	26.8	27.9	29.7	28.8
17-031-4201	Northbrook	30.1	23.7	25.1	36.8	27.0	26.3	28.5	29.6
17-043-4002	Naperville	28.4	23.4	33.1	37.8	25.1	28.3	31.4	32.0
17-065-0002	Knight Prairie	25.3	22.1	25.7	33.4	22.3	24.4	27.1	27.1
17-083-1001	Jerseyville	21.4	19.2	21.6	31.3	27.5	20.7	24.0	26.8
17-089-0003	Elgin McKinley School	32.3	23.7	33.3	35.4	29.8	29.8	30.8	32.8
17-089-0007	Aurora	32.4	26.4	26.3	35.5	25.4	28.4	29.4	29.1
17-097-1007	Zion	21.8	22.1	22.8	32.8	25.6	22.2	25.9	27.1
17-099-0007	Oglesby	29.0	26.0	22.4	30.9	-	25.8	26.4	26.7
17-111-0001	Cary	29.4	26.0	27.0	28.6	27.6	27.5	27.2	27.7
17-113-2003	Normal	25.0	22.4	24.0	33.3	23.8	23.8	26.6	27.0
17-115-0013	Decatur IEPA Trailer	22.1	21.6	26.6	35.8	26.0	23.4	28.0	29.5

Table B7
2010 PM2.5 24-Hour Design Values

AQS ID	City	98th Percentile Concentrations (ug/m3)					Design Values* (ug/m3)		
		2010	2009	2008	2007	2006	2008-2010	2007-2009	2006-2008
17-119-2009	Alton SIU Dental Clinic	25.0	18.5	30.0	35.0	27.6	24.5	27.8	30.9
17-119-0024	Granite City Gateway Medical Center	28.6	23.7	30.7	-	-	27.7	27.2	30.7
17-119-1007	Granite City Fire Station #1	29.2	24.8	31.9	36.0	36.3	28.6	30.9	34.7
17-119-3007	Wood River	22.1	21.7	25.4	34.5	28.3	23.1	27.2	29.4
17-143-0037	Peoria City Office Building	26.0	23.9	27.0	34.7	27.4	25.6	28.5	29.7
17-157-0001	Houston	17.2	21.0	20.8	31.8	25.7	19.7	24.5	26.1
17-161-3002	Rock Island	24.5	19.5	24.0	26.9	26.7	22.7	23.5	25.9
17-163-0010	East St. Louis	22.0	22.8	25.0	33.1	29.2	23.3	27.0	29.1
17-163-4001	Swansea	23.9	24.2	26.9	32.9	28.1	25.0	28.0	29.3
17-167-0012	Springfield Agricultural Building	24.2	21.7	24.1	34.3	28.4	23.3	26.7	28.9
17-197-1002	Joliet Pershing Elementary	28.3	25.5	31.3	38.8	25.9	28.4	31.9	32.0
17-197-1011	Braidwood	24.1	19.2	25.9	29.3	21.6	23.1	24.8	25.6
17-201-0013	Rockford Health Department	23.9	26.2	28.7	30.4	27.3	26.3	28.4	28.8
Statewide Average		26.9	24.3	27.4	34.2	27.4	26.2	28.6	29.6

*The design value is the 3-year average of the 98th percentile concentration. Design value greater than or equal to 35.5 ug/m3 is a violation of the National Ambient Air Quality Standard.

Table B8
2010 PM2.5 Annual Design Values

AQS ID	City	Annual Arithmetic Mean Concentrations (ug/m3)					Design Values* (ug/m3)		
		2010	2009	2008	2007	2006	2008-2010	2007-2009	2006-2008
17-001-0007	Quincy	10.5	8.3	9.2	11.5	11.2	9.3	9.7	10.6
17-019-0004	Champaign	-	10.5	10.5	12.7	12.1	10.5	11.2	11.8
17-019-1001	Bondville	10.5	10.5	10.9	13.2	11.1	10.6	11.5	11.7
17-031-0022	Chicago Washington High School	14.0	11.6	12.5	15.7	13.2	12.7	13.3	13.8
17-031-0050	Chicago Southeast Police Station	12.5	11.0	11.8	14.1	13.3	11.8	12.3	13.1
17-031-0052	Chicago Mayfair Pump Station	12.6	12.7	12.2	15.5	14.5	12.5	13.5	14.1
17-031-0057	Chicago Springfield Pump Station	12.0	11.3	12.0	15.2	13.5	11.8	12.8	13.6
17-031-0076	Chicago Com Ed Maintenance	12.3	11.1	11.9	14.3	13.5	11.8	13.2	12.4
17-031-1016	Lyons Township	12.6	12.6	12.9	15.6	15.6	12.7	13.7	14.7
17-031-2001	Blue Island	11.6	11.7	12.5	14.3	13.2	11.9	12.8	13.3
17-031-3103	Schiller Park	12.6	12.9	13.6	15.4	14.9	13.0	14.0	14.6
17-031-3301	Summit	12.2	11.6	12.0	14.8	13.8	11.9	12.8	13.5
17-031-6005	Cicero Liberty School	11.9	12.0	13.3	14.8	14.4	12.4	13.4	14.2
17-031-4007	Des Plaines	10.6	11.0	11.4	12.7	11.4	11.0	11.7	11.8
17-031-4201	Northbrook	9.3	9.3	10.1	13.2	11.9	9.6	10.9	11.7
17-043-4002	Naperville	11.7	9.8	11.3	13.8	12.7	10.9	11.6	12.6
17-065-0002	Knight Prairie	11.3	10.1	12.4	13.4	11.2	11.3	12.0	12.3
17-083-1001	Jerseyville	11.2	9.9	10.1	13.4	11.5	10.4	11.1	11.7
17-089-0003	Elgin McKinley School	11.3	9.6	10.8	13.2	11.8	10.6	11.2	11.9
17-089-0007	Aurora	11.4	10.0	10.3	14.5	12.7	10.6	11.6	12.5
17-097-1007	Zion	9.7	8.8	9.3	11.9	10.7	9.3	10.0	10.6
17-099-0007	Oglesby	9.5	10.9	10.8	11.7	11.8	10.4	11.1	11.4
17-111-0001	Cary	10.2	9.6	10.1	11.6	11.8	10.0	10.4	11.2
17-113-2003	Normal	10.6	10.1	10.7	12.4	11.4	10.5	11.1	11.5
17-115-0013	Decatur IEPA Trailer	12.2	11.0	12.0	14.0	12.2	11.7	12.3	12.7

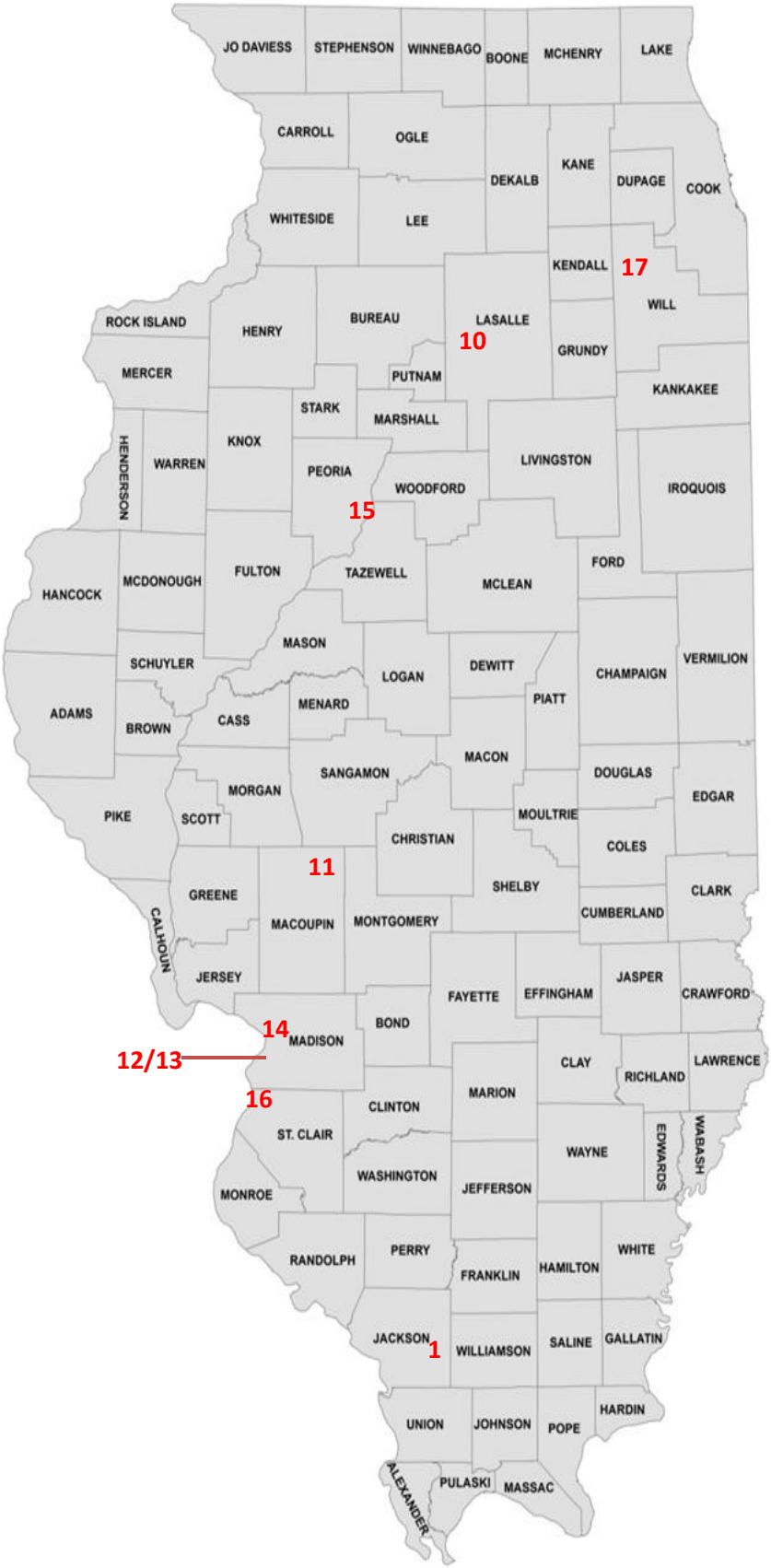
Table B8
2010 PM2.5 Annual Design Values

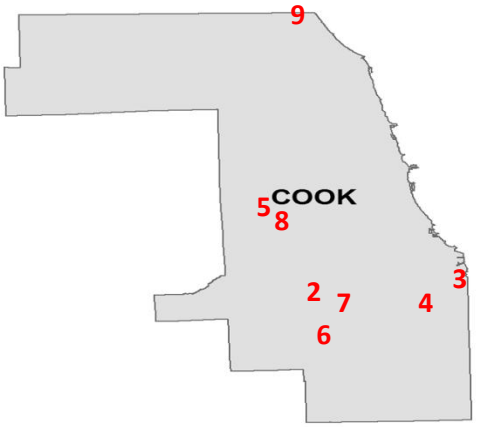
AQS ID	City	Annual Arithmetic Mean Concentrations (ug/m3)					Design Values* (ug/m3)		
		2010	2009	2008	2007	2006	2008-2010	2007-2009	2006-2008
17-119-2009	Alton SIU Dental Clinic	13.3	10.1	12.5	14.9	13.1	12.0	12.5	13.5
17-119-0024	Granite City Gateway Medical Center	14.6	11.4	14.4	-	-	13.5	12.9	14.4
17-119-1007	Granite City Fire Station #1	14.3	11.3	15.7	15.1	16.3	13.8	14.0	**15.6**
17-119-3007	Wood River	12.0	11.0	12.2	14.2	13.1	11.7	12.5	13.2
17-143-0037	Peoria City Office Building	11.5	10.7	11.1	13.1	12.1	11.1	11.6	12.1
17-157-0001	Houston	10.2	9.7	10.4	14.2	11.4	10.1	11.4	12.0
17-161-3002	Rock Island	9.9	8.5	10.7	12.5	10.4	9.7	10.6	11.2
17-163-0010	East St. Louis	13.0	11.7	12.5	15.6	14.6	12.4	13.3	14.2
17-163-4001	Swansea	12.8	11.7	12.6	13.3	13.4	12.4	12.5	13.1
17-167-0012	Springfield Agricultural Building	11.5	10.6	11.0	13.0	11.7	11.0	11.5	11.9
17-197-1002	Joliet Pershing Elementary	11.8	10.5	11.7	14.6	12.2	11.3	12.3	12.8
17-197-1011	Braidwood	10.0	8.7	10.3	12.1	9.8	9.7	10.4	10.7
17-201-0013	Rockford Health Department	10.0	9.5	10.7	12.5	12.3	10.1	10.9	11.8
Statewide Average		11.6	10.6	11.6	13.7	12.7	11.3	12.0	12.6

*The design value is the 3-year average of the annual arithmetic mean concentrations. Design value greater than 15.0 ug/m3 is a violation of the National Ambient Air Quality Standard.

Shaded cells indicate less than 75% data capture during at least one quarter of the year.

2010 PM_{10} Monitoring Sites





	Site ID	Site Name
1.	170770004	Carbondale
2.	170310001	Alsip
3.	170310022	Chicago – Washington High School
4.	170310060	Chicago – Carver High School
5.	170311016	Lyons Township
6.	170311901	Midlothian
7.	170312001	Blue Island
8.	170313301	Summit
9.	170314201	Northbrook
10.	170990007	Oglesby
11.	171170002	Nilwood
12.	171190010	Granite City – 15th and Madison
13.	171191007	Granite City – 23rd and Madison
14.	171193007	Wood River
15.	171430037	Peoria
16.	171630010	East St. Louis
17.	171971002	Joliet

Table B9
2010 24-Hour PM10 Exceedances

EXCEEDANCES OF THE 24-HOUR PRIMARY STANDARD OF 150 ug/m3		
Date	**City**	**Concentration (ug/m3)**
None	None	None
Total Over 150 ug/m3	0	
Total Days Over 150 ug/m3	0	

Table B10
2010 PM10 24-Hour Highs and Design Values

AQS ID	City	Total Samples	Highest 24-hour Samples								Samples Greater Than 150 ug/m3			3-year Average*
			1st	2nd	3rd	4th	5th	6th	7th	8th	2010	2009	2008	
17-031-0001	Alsip	58	53	43	41	37	36	31	31	30	0	0	0	0.0
17-031-0022	Chicago Washington High School	354	91	60	56	55	55	53	53	52	0	0	0	0.0
17-031-0060	Chicago Carver High School	58	57	57	51	50	49	49	45	39	0	0	0	0.0
17-031-1016	Lyons Township	357	67	65	65	64	63	62	62	61	0	0	0	0.0
17-031-1901	Midlothian	61	59	50	41	39	38	36	35	34	0	0	0	0.0
17-031-2001	Blue Island	59	77	44	43	42	40	38	38	36	0	0	0	0.0
17-031-3301	Summit	54	58	48	45	44	44	43	42	39	0	0	0	0.0
17-031-4201	Northbrook	59	43	43	42	41	34	31	30	28	0	0	0	0.0
17-077-0004	Carbondale	44	50	40	33	32	32	31	31	30	0	0	0	0.0
17-099-0007	Oglesby	337	84	68	66	65	62	62	59	58	0	0	0	0.0
17-117-0002	Nilwood	55	33	32	31	31	31	31	25	25	0	0	0	0.0
17-119-0010	Granite City Air Products	61	106	79	66	61	57	56	54	53	0	0	0	0.0
17-119-1007	Granite City Fire Station #1	0	-	-	-	-	-	-	-	-	-	0	0	0.0
17-119-3007	Wood River	58	48	36	32	31	31	31	31	30	0	0	0	0.0
17-143-0037	Peoria	56	48	47	34	34	32	28	28	27	0	0	0	0.0
17-163-0010	East St. Louis	59	64	62	52	51	44	43	42	41	0	0	0	0.0
17-197-1002	Joliet Pershing Elementary	56	46	43	39	37	36	35	34	34	0	0	0	0.0
Statewide Average			62	51	46	45	43	41	40	39				
Total Over 150 ug/m3											0	0	0	
Total Days Over 150 ug/m3											0	0	0	

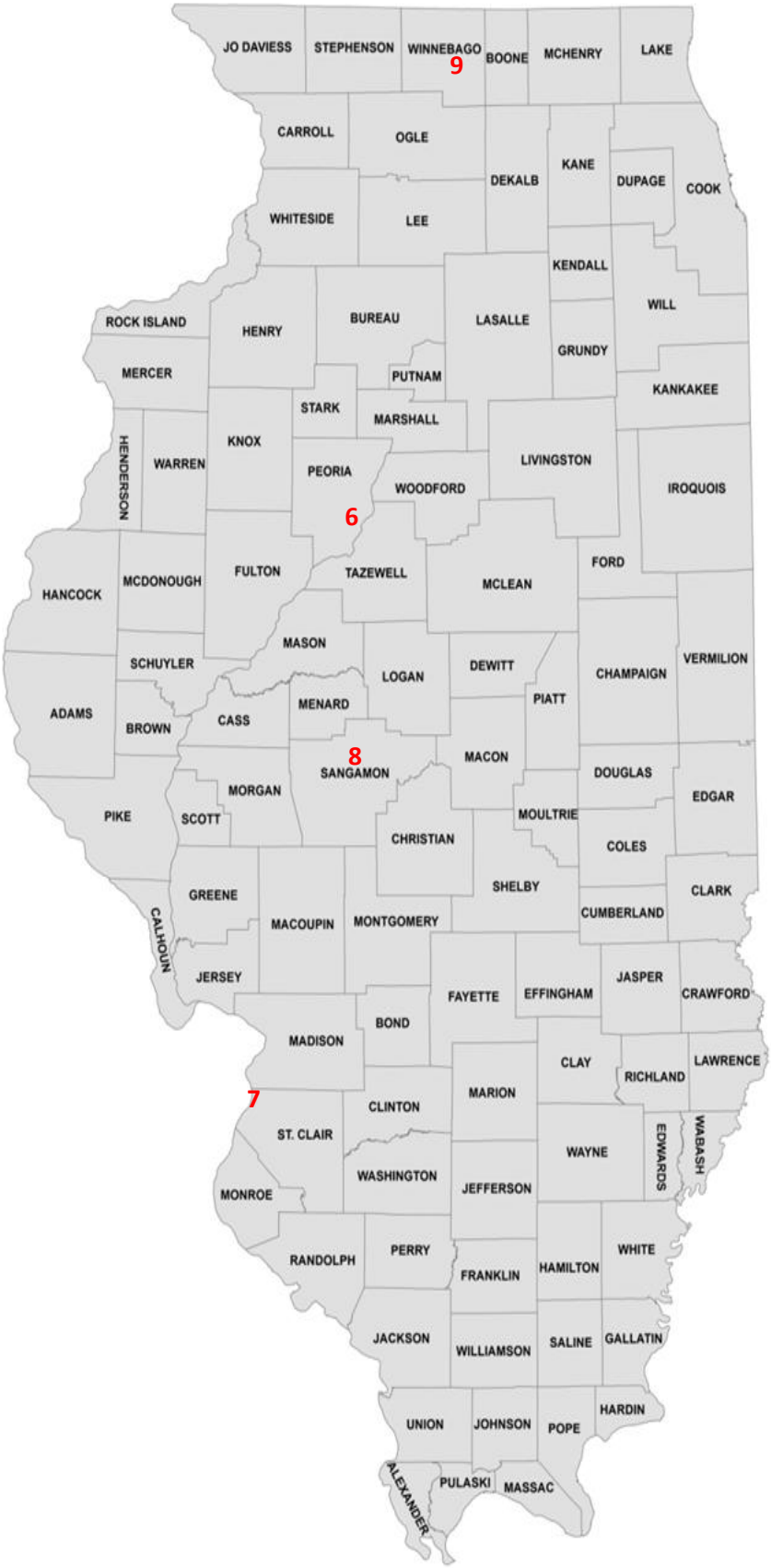
*The 24-hour PM10 standard is an exceedance-based standard set at 150 ug/m3. The level is not to be exceeded more than once per year on average over three years. Three year averages more than one are a violation of the National Ambient Air Quality Standard.

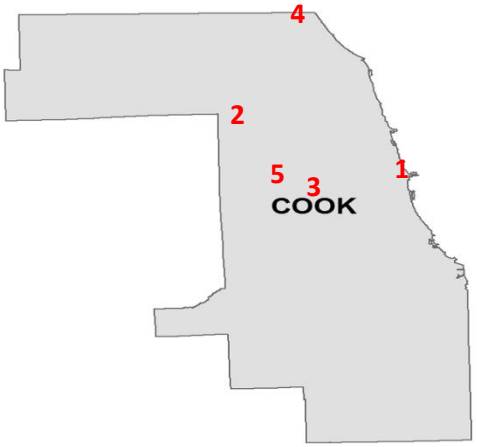
Table B11
2010 PM10 Annual Design Values

AQS ID	City	Annual Arithmetic Mean Concentration (ug/m3)					Design Values* (ug/m3)		
		2010	2009	2008	2007	2006	2008-2010	2007-2009	2006-2008
17-031-0001	Alsip	20	19	21	24	21	20	21	22
17-031-0022	Chicago Washington High School	22	20	23	26	22	22	23	24
17-031-0060	Chicago Carver High School	26	27	23	31	24	25	27	26
17-031-1016	Lyons Township	27	26	29	33	32	27	29	31
17-031-1901	Midlothian	21	19	21	24	21	20	21	22
17-031-2001	Blue Island	24	22	23	28	23	23	24	25
17-031-3301	Summit	25	19	24	28	23	23	24	25
17-031-4201	Northbrook	17	16	17	25	17	17	19	20
17-077-0004	Carbondale	22	16	17	22	21	18	18	20
17-099-0007	Oglesby	27	19	27	27	24	24	24	26
17-117-0002	Nilwood	17	15	16	24	22	16	18	21
17-119-0010	Granite City Air Products	32	25	33	34	33	30	31	33
17-119-1007	Granite City Fire Station #1	-	24	34	40	-	29	33	37
17-119-3007	Wood River	22	18	24	29	25	21	24	26
17-143-0037	Peoria City Office Building	18	16	16	26	23	17	19	22
17-163-0010	East St. Louis	26	23	20	33	34	23	25	29
17-197-1002	Joliet Pershing Elementary	20	15	14	24	17	16	18	18
Statewide Average		23	20	22	28	24	22	23	25

*The annual PM10 standard was revoked in 2007. Previously the standard was a 3-year average of the annual means. Concentrations above 50 ug/m3 were a violation of the former National Ambient Air Quality Standard. Currently only the 24-hour PM10 standard is in place (see Table B10).

2010 Carbon Monoxide Monitoring Sites





	Site ID	Site Name
1.	170310063	Chicago – Chicago Transit Authority
2.	170313103	Schiller Park
3	170314002	Cicero
4.	170314201	Northbrook
5.	170316004	Maywood
6.	171430036	Peoria
7.	171630010	East St. Louis
8.	171670008	Springfield
9.	172010011	Rockford

Table B12
2010 Carbon Monoxide Exceedances

EXCEEDANCES OF EITHER THE 1-HOUR (35 PPM) OR 8-HOUR (9 PPM) PRIMARY STANDARDS			
Date	**City**	**Concentration**	**Averaging Period**
None	None	None	None

Total 1-hour Over 35 ppm	0	Total 8-hour Over 9 ppm	0
Total Days 1-hour Over 35 ppm	0	Total Days 8-hour Over 9 ppm	0

Table B13
2010 Carbon Monoxide Highs

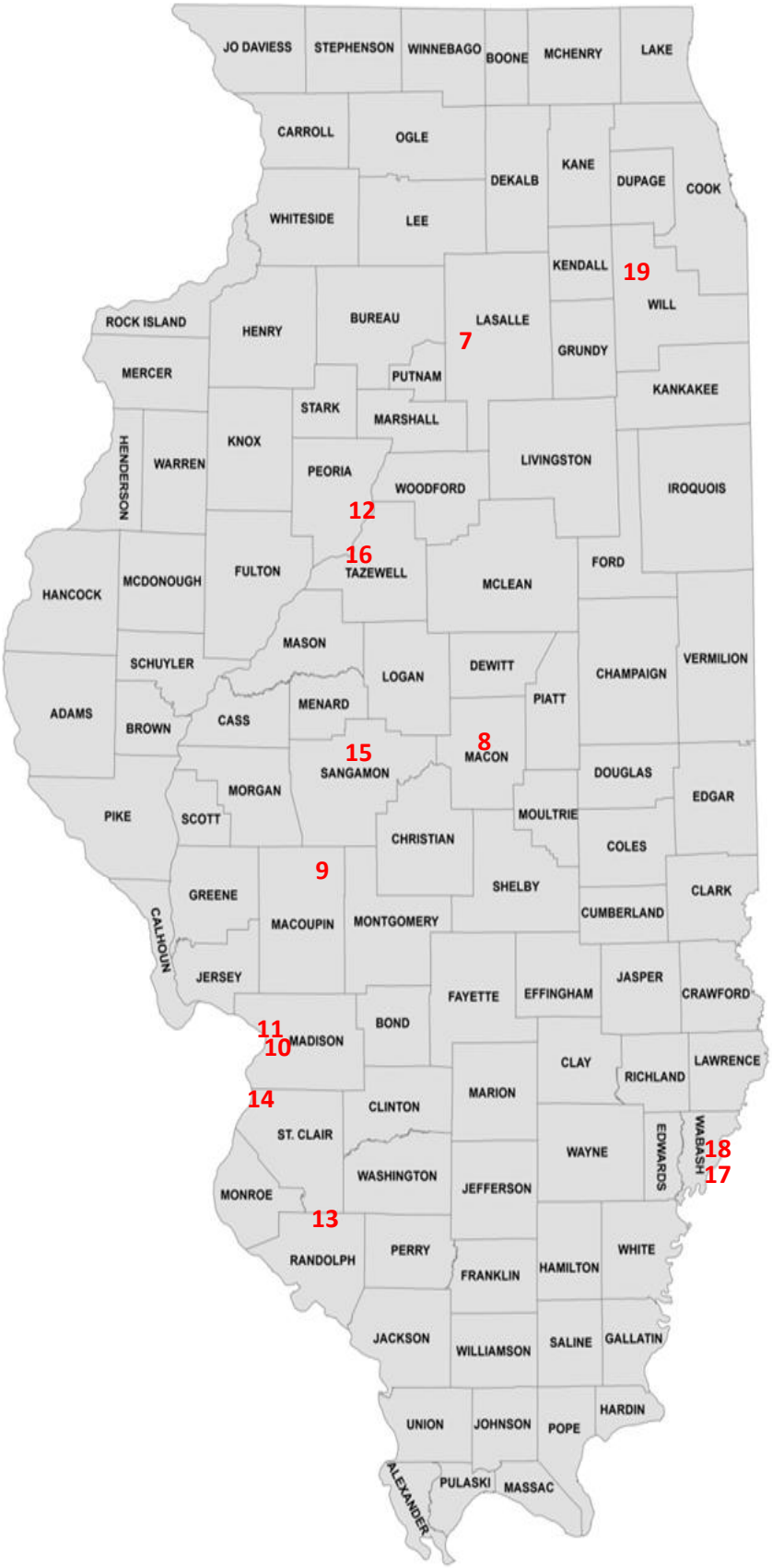
AQS ID	City	Total Hourly Samples	4th Highest Samples 1hr (ppm)				4th Highest Samples 8hr (ppm)			
17-031-0063	Chicago CTA Building	8760	4.3	1.8	1.8	1.6	1.4	1.1	1.1	1.0
17-031-3103	Schiller Park	8759	1.7	1.6	1.6	1.5	1.2	1.2	1.1	1.1
17-031-4002	Cicero Cook County Trailer	8632	3.1	2.4	2.3	2.0	1.5	1.5	1.4	1.3
17-031-4201	Northbrook	4699	1.8	1.3	1.3	1.2	1.0	0.8	0.8	0.8
17-031-6004	Maywood Com Ed Maintenance	8662	3.1	2.9	2.5	2.5	2.0	1.9	1.8	1.7
17-143-0036	Peoria Commercial Building	8760	2.6	2.1	1.9	1.9	1.6	1.6	1.4	1.4
17-163-0010	East St. Louis	8423	2.0	1.9	1.8	1.7	1.7	1.5	1.4	1.3
17-167-0008	Springfield Federal Building	8591	1.7	1.7	1.7	1.7	1.4	1.3	1.2	1.1
17-201-0011	Rockford City Hall	8760	2.0	1.7	1.7	1.7	1.4	1.3	1.1	1.1
Statewide Average			2.5	1.9	1.8	1.8	1.5	1.4	1.3	1.2

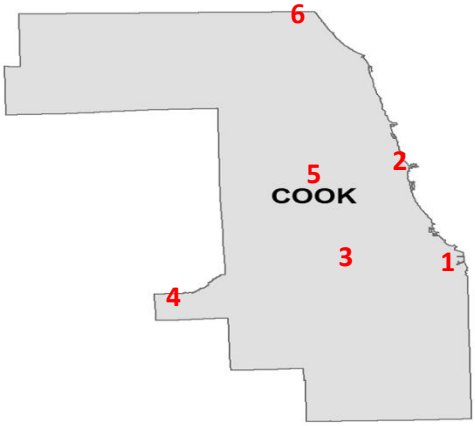
Table B14
2010 Carbon Dioxide 1-Hour and 8-Hour Design Values

AQS ID	City	1-Hour Samples Greater than 35 (ppm)					8-Hour Samples Greater than 9 (ppm)				
		2010	2009	2008	2007	2006	2010	2009	2008	2007	2006
17-031-0063	Chicago CTA Building	0	0	0	0	0	0	0	0	0	0
17-031-3103	Schiller Park	0	0	0	0	0	0	0	0	0	0
17-031-4002	Cicero Cook County Trailer	0	0	0	0	0	0	0	0	0	0
17-031-4201	Northbrook	0	0	0	0	0	0	0	0	0	0
17-031-6004	Maywood Com Ed Maintenance	0	0	0	0	0	0	0	0	0	0
17-143-0036	Peoria Commercial Building	0	0	0	0	0	0	0	0	0	0
17-163-0010	East St. Louis	0	0	0	0	0	0	0	0	0	0
17-167-0008	Springfield Federal Building	0	0	0	0	0	0	0	0	0	0
17-201-0011	Rockford City Hall	0	0	0	0	0	0	0	0	0	0

*The 1-hour and 8-hour carbon monoxide standard is an exceedance-based standard. The 1-hour standard is set at 35 ppm and is not to be exceeded more than once per year. The 8-hour standard is set at 9 ppm and is not to be exceeded more than once per year. More than one exceedance in a year is a violation of the National Ambient Air Quality Standard.

2010 Sulfur Dioxide Monitoring Sites





	Site ID	Site Name
1.	170310050	Chicago – Southeast Police Station
2.	170310063	Chicago – Chicago Transit Authority
3	170310076	Chicago – Com Ed Maintenance Bldg.
4.	170311601	Lemont
5.	170314002	Cicero
6.	170314201	Northbrook
7.	170990007	Oglesby
8.	171150013	Decatur
9.	171170002	Nilwood
10.	171191010	South Roxana
11.	171193007	Wood River
12.	171430024	Peoria
13.	171570001	Houston
14.	171630010	East St. Louis
15.	171670006	Springfield
16.	171790004	Pekin
17.	171850001	Mount Carmel
18.	171851001	Rural Wabash County
19.	171970013	Joliet

Table B15
2010 Sulfur Dioxide Exceedances

EXCEEDANCES OF THE 1-HOUR PRIMARY STANDARD OF 75 ppb		
Date	**City**	**Concentration (ppb)**
1/17	Pekin	89
1/24	Pekin	174
1/25	Pekin	241
1/27	Springfield	115
2/3	Pekin	89
2/14	Lemont	90
2/19	Pekin	114
3/11	Pekin	117
3/18	Pekin	177
3/19	Pekin	108
3/23	Pekin	108
4/3	Pekin	102
4/7	Pekin	179
4/15	Pekin	134
4/21	Pekin	170
4/30	Mt. Carmel	95
5/3	Pekin	86
5/9	Pekin	104
5/11	Pekin	106
5/13	Pekin	331
6/2	Pekin	254
6/16	Lemont	103
6/19	Pekin	115
6/27	Pekin	87
7/28	Pekin	107
8/29	Wood River	79
8/30	Wood River	106
9/7	Pekin	228
	Lemont	94
9/12	Pekin	110
9/16	Pekin	102
9/20	Mt. Carmel	207
	Springfield	80
10/1	Pekin	97
10/6	Pekin	98
	Lemont	88
10/14	Pekin	160
10/20	Pekin	197
10/26	Pekin	111
10/27	Pekin	220
10/30	Pekin	172

Table B15
2010 Sulfur Dioxide Exceedances

EXCEEDANCES OF THE 1-HOUR PRIMARY STANDARD OF 75 ppb		
Date	**City**	**Concentration (ppb)**
11/13	Pekin	167
11/14	Pekin	122
11/26	Pekin	138
11/30	Pekin	149
12/11	Pekin	88
12/17	Lemont	85
12/18	Lemont	105
12/19	Lemont	83
12/31	Pekin	99
Total Over 75 ppb	50	
Total Days Over 75 ppb	47	

Table B16
2010 Sulfur Dioxide Highs

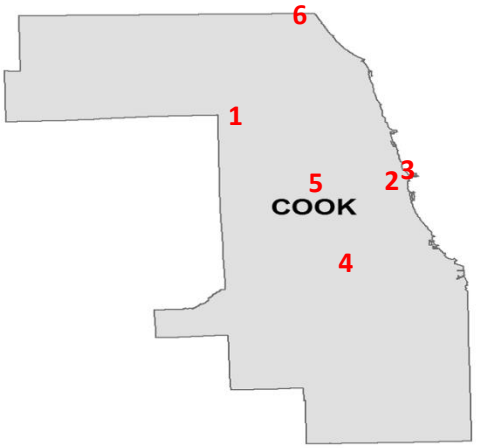
AQS ID	City	Total Valid Sample Days	Samples Greater Than 75 ppb			Highest Daily 1-Hour Samples (ppb)				Highest 3-Hour Block Averages (ppb)	
			2010	2009	2008	1st	2nd	3rd	4th	1st	2nd
17-031-0050	Chicago Southeast Police Station	353	0	0	0	22	22	21	21	15	15
17-031-0063	Chicago CTA Building	353	0	0	0	27	18	17	14	17	12
17-031-0076	Chicago Com Ed Maintenance	347	0	0	0	28	27	25	20	20	16
17-031-1601	Lemont	346	7	10	11	105	103	94	90	96	75
17-031-4002	Cicero Cook County Trailer	327	0	0	0	33	32	32	31	27	24
17-031-4201	Northbrook	331	0	0	0	21	20	17	15	16	14
17-099-0007	Oglesby	365	0	0	43	15	14	14	14	12	12
17-115-0013	Decatur IEPA Trailer	365	0	0	0	56	52	49	49	40	39
17-117-0002	Nilwood	360	0	0	1	23	17	16	15	16	12
17-119-1010	South Roxana	355	0	4	10	69	68	61	57	34	33
17-119-3007	Wood River	364	2	1	3	106	79	56	54	58	50
17-143-0024	Peoria Fire Station #8	314	0	0	0	66	48	43	43	39	35
17-157-0001	Houston	358	0	0	0	45	40	35	31	30	25
17-163-0010	East St. Louis	350	0	0	0	44	43	40	31	31	26
17-167-0006	Springfield Sewage Treatment Plant	360	2	0	21	115	80	35	24	65	41
17-179-0004	Pekin	363	37	50	19	331	254	241	228	223	202
17-185-0001	Mount Carmel	358	2	2	7	207	95	67	66	139	87
17-185-1001	Rural Wabash County	361	0	1	0	72	63	61	59	42	40
17-197-0013	Joliet Water Plant West	355	0	0	1	33	27	25	24	19	18
Statewide Average						75	58	50	47	49	41
Total Over 75 ppb			50	68	115						
Total Days Over 75 ppb			47	65	94						

Table B17
2010 Sulfur Dioxide Design Values

AQS ID	City	99th Percentile Concentrations (ppb)					Design Values* (ppb)		
		2010	2009	2008	2007	2006	2008-2010	2007-2009	2006-2008
17-031-0050	Chicago Southeast Police Station	21	19	35	38	30	25	31	34
17-031-0063	Chicago CTA Building	14	21	26	30	52	20	26	36
17-031-0076	Chicago Com Ed Maintenance	20	24	26	29	59	23	26	38
17-031-1601	Lemont	90	114	97	119	97	**100**	**110**	**104**
17-031-4002	Cicero Cook County Trailer	31	29	43	33	68	34	35	48
17-031-4201	Northbrook	15	17	13	-	-	15	15	-
17-099-0007	Oglesby	14	8	326	356	239	**116**	**230**	**307**
17-115-0013	Decatur IEPA Trailer	49	36	44	51	46	43	44	47
17-117-0002	Nilwood	15	16	20	20	40	17	19	27
17-119-1010	South Roxana	57	81	152	84	83	**97**	**106**	**106**
17-119-3007	Wood River	54	46	67	68	42	56	60	59
17-143-0024	Peoria Fire Station #8	43	21	52	58	71	39	44	60
17-157-0001	Houston	31	26	35	31	28	31	31	31
17-163-0010	East St. Louis	31	30	35	33	47	32	33	38
17-167-0006	Springfield Sewage Treatment Plant	31	24	131	139	91	62	**98**	**120**
17-179-0004	Pekin	228	233	243	220	252	**235**	**232**	**238**
17-185-0001	Mount Carmel	66	69	90	109	161	75	**89**	**120**
17-185-1001	Rural Wabash County	59	53	57	97	181	56	69	**112**
17-197-0013	Joliet Water Plant West	24	32	56	63	67	37	50	62
Statewide Average		47	47	81	88	92	59	71	84

*The design value is the 3-year average of the 99th percentile concentration. Design value greater than 75 ppb is a violation of the National Ambient Air Quality Standard.

2010 Nitrogen Dioxide Monitoring Sites



	Site ID	Site Name
1.	170190004	Schiller Park
2.	170310042	Chicago – Chicago Transit Authority
3.	170310072	Chicago – Jardine Water Plant
4.	170310076	Chicago – Com Ed Maintenance Bldg.
5.	170314002	Cicero
6.	170314201	Northbrook
7.	171630010	East St. Louis

Table B18
2010 1-Hour Nitrogen Dioxide Exceedances

EXCEEDANCES OF THE 1-HOUR PRIMARY STANDARD OF 100 PPB		
Date	**City**	**Concentration (ppb)**
None	None	None
Total Over 100 ppb	0	
Total Days Over 100 ppb	0	

Table B19
2010 Nitrogen Dioxide Highs

AQS ID	City	Total Valid Sample Days	Samples Greater Than 100 ppb			Highest Samples							
			2010	2009	2008	1st	2nd	3rd	4th	5th	6th	7th	8th
17-031-0063	Chicago CTA Building	355	0	11	97	85	81	75	75	74	73	71	71
17-031-0072	Chicago[1] Jardine Water Plant	150	0	0	0	79	63	52	50	50	49	48	45
17-031-0076	Chicago Com Ed Maintenance	343	0	1	0	85	72	69	61	59	58	56	56
17-031-3103	Schiller Park	351	0	1	2	79	68	63	62	60	60	60	59
17-031-4002	Cicero Cook County Trailer	352	0	2	0	80	79	79	78	73	69	67	64
17-031-4201	Northbrook	345	0	0	0	68	60	57	56	56	55	53	51
17-163-0010	East St. Louis	362	0	0	0	49	48	45	44	44	44	44	43
Statewide Average						75	67	63	61	59	58	57	56
Total Over 100 ppb			0	15	99								
Total Days Over 100 ppb			0	12	97								

[1] Chicago Jardine site operated only during ozone season.

Table B20
2010 Nitrogen Dioxide Design Values

AQS ID	City	98th Percentile Concentrations (ppb)					Design Values* (ppb)		
		2010	2009	2008	2007	2006	2008-2010	2007-2009	2006-2008
17-031-0063	Chicago CTA Building	71	79	132	119	97	94	110	116
17-031-0072	Chicago Jardine Water Plant	52	58	61	64	65	57	61	63
17-031-0076	Chicago Com Ed Maintenance	56	58	56	61	56	57	58	58
17-031-3103	Schiller Park	59	64	72	75	69	65	70	72
17-031-4002	Cicero Cook County Trailer	64	60	66	67	63	63	64	65
17-031-4201	Northbrook	53	54	50	47	51	52	50	49
17-163-0010	East St. Louis	43	49	48	52	50	47	50	50
Statewide Average		57	60	69	69	64	62	66	68

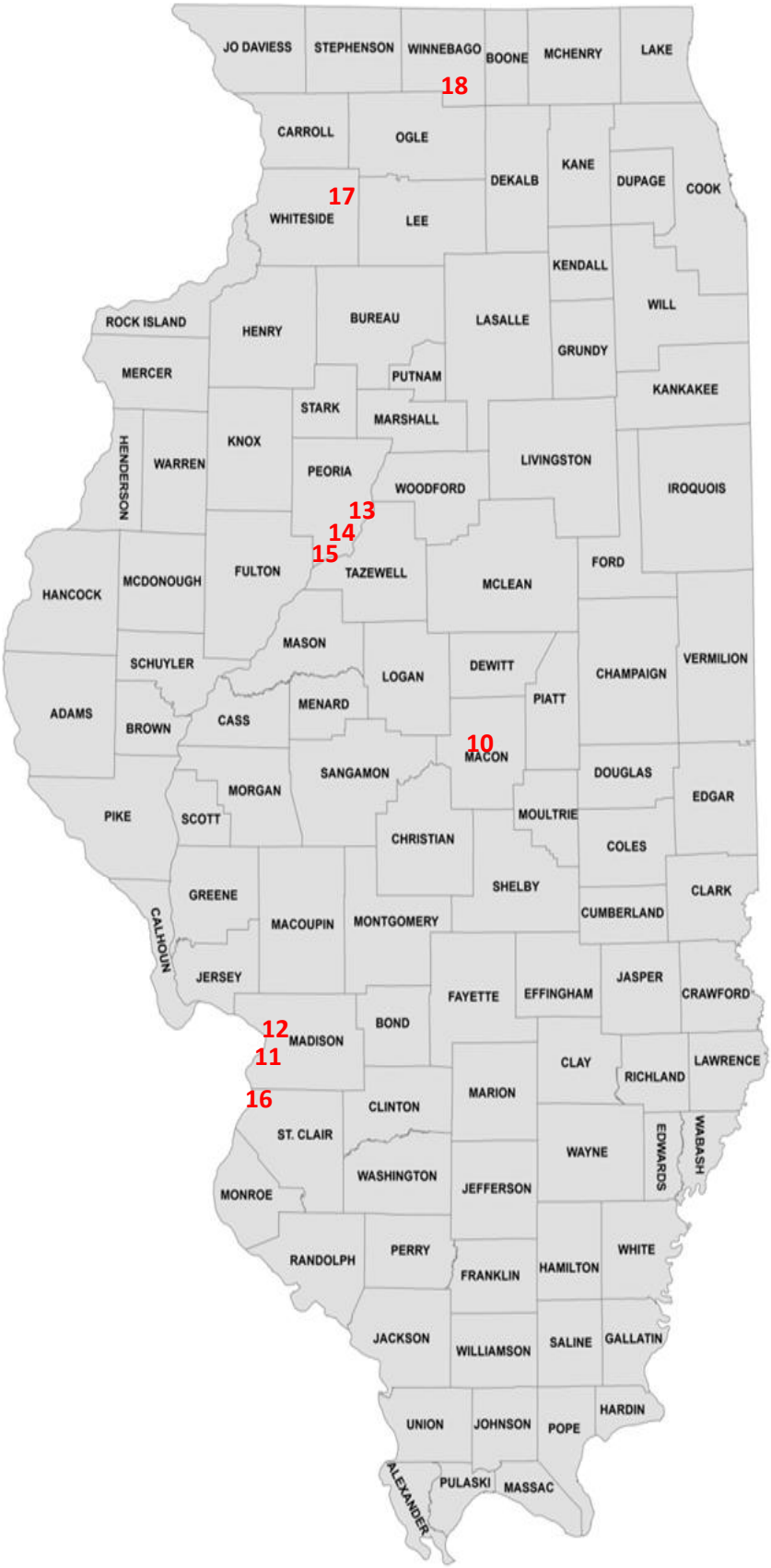
*The design value is the 3-year average of the 98th percentile concentration. Design value greater than 100 ppb is a violation of the National Ambient Air Quality Standard.

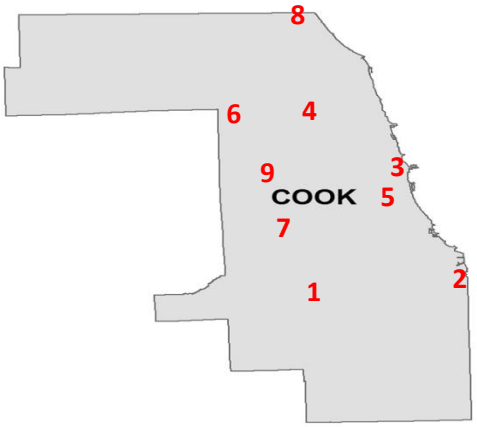
Table B21
2010 Nitrogen Dioxide Annual Design Values

AQS ID	City	Annual Arithmetic Mean Concentrations* (ppb)				
		2010	2009	2008	2007	2006
17-031-0063	Chicago CTA Building	25	25	31	33	31
17-031-0076	Chicago Com Ed Maintenance	17	17	17	18	18
17-031-3103	Schiller Park	23	23	27	28	28
17-031-4002	Cicero Cook County Trailer	20	20	20	22	22
17-031-4201	Northbrook	12	12	14	15	16
17-163-0010	East St. Louis	12	14	14	16	15
Statewide Average		18	19	21	22	22

*The design value is the highest annual average concentration during the most recent two years. Design value greater than 53 ppb is a violation of the National Ambient Air Quality Standard.

2010 Lead Monitoring Sites





	Site ID	Site Name
1.	170310001	Alsip
2.	170310022	Chicago – Washington High School
3.	170310026	Chicago – Cermak Pump Station
4.	170310052	Chicago – Mayfair Pump Station
5.	170310110	Chicago – Perez Elementary
6.	170313103	Schiller Park
7.	170313301	Summit
8.	170314201	Northbrook
9.	170316003	Maywood
10.	171150110	Decatur – Mueller
11.	171190010	Granite City – 15th and Madison
12.	171193007	Wood River
13.	171430037	Peoria
14.	171430110	Bartonville
15.	171430210	Mapleton
16.	171630010	East St. Louis
17.	171950110	Sterling
18.	172010110	Rockford – J. Rubin & Company

Table B22
2010 Lead Highs

AQS ID	City	Total Sample Days	Highest Monthly Means					Maximum 3-Month Mean
			1st	2nd	3rd	4th	5th	
17-031-0001	Alsip	55	0.02	0.02	0.02	0.02	0.02	0.02
17-031-0022	Chicago Washington High School	59	0.06	0.06	0.06	0.05	0.04	0.05
17-031-0026	Chicago Cermak Pump Station	61	0.04	0.04	0.04	0.03	0.03	0.03
17-031-0052	Chicago Mayfair Pump Station	60	0.03	0.02	0.02	0.02	0.02	0.02
17-031-0110	Chicago Perez Elementary	56	0.58	0.30	0.20	0.18	0.08	0.24
17-031-3103	Schiller Park	57	0.02	0.01	0.01	0.01	0.01	0.01
17-031-3301	Summit	56	0.03	0.03	0.03	0.02	0.02	0.03
17-031-4201	Northbrook	60	0.01	0.01	0.01	0.01	0.01	0.01
17-031-6003	Maywood 4th District Court	58	0.18	0.04	0.03	0.03	0.03	0.07
17-115-0110	Decatur Mueller	52	0.17	0.14	0.14	0.10	0.09	0.12
17-119-0010	Granite City Air Products	57	0.84	0.36	0.30	0.27	0.22	0.42
17-119-3007	Wood River	59	0.05	0.03	0.02	0.02	0.02	0.04
17-143-0037	Peoria City Office Building	57	0.01	0.01	0.01	0.01	0.01	0.01
17-143-0110	Bartonville	58	0.02	0.02	0.01	0.01	0.01	0.02
17-143-0210	Mapleton	57	0.02	0.01	0.01	0.01	0.01	0.01
17-163-0010	East St. Louis	58	0.04	0.03	0.03	0.02	0.02	0.03
17-195-0110	Sterling	57	0.04	0.04	0.03	0.02	0.02	0.02
17-201-0110	Rockford J. Rubin & Company	54	0.12	0.05	0.03	0.03	0.03	0.06
Statewide Average			0.13	0.07	0.06	0.05	0.04	0.07

Table B23
2010 Lead Design Values

AQS ID	City	Maximum 3-Month Rolling Mean (ug/m3)					Design Values* (ug/m3)		
		2010	2009	2008	2007	2006	2008-2010	2007-2009	2006-2008
17-031-0001	Alsip	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02
17-031-0022	Chicago Washington High School	0.05	0.05	0.05	0.05	0.04	0.05	0.05	0.05
17-031-0026	Chicago Cermak Pump Station	0.03	0.03	0.05	0.04	0.06	0.05	0.05	0.06
17-031-0052	Chicago Mayfair Pump Station	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.03
17-031-0110	Chicago Perez Elementary	0.24	-	-	-	-	**0.24**	-	-
17-031-3103	Schiller Park	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.02
17-031-3301	Summit	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.02
17-031-4201	Northbrook	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
17-031-6003	Maywood 4th District Court	0.04	0.03	0.03	0.03	0.03	0.04	0.03	0.03
17-115-0110	Decatur Mueller	0.12	-	-	-	-	0.12	-	-
17-119-0010	Granite City Air Products	0.42	0.12	0.28	0.20	0.18	**0.42**	0.28	0.28
17-119-3007	Wood River	0.04	0.02	0.04	0.03	0.02	0.04	0.04	0.04
17-143-0037	Peoria City Office Building	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
17-143-0110	Bartonville	0.02	-	-	-	-	0.02	-	-
17-143-0210	Mapleton	0.02	-	-	-	-	0.02	-	-
17-163-0010	East St. Louis	0.03	0.02	0.04	0.05	0.04	0.04	0.05	0.05
17-195-0110	Sterling	0.02	-	-	-	-	0.02	-	-
17-201-0110	Rockford J. Rubin & Company	0.06	-	-	-	-	0.06	-	-
Statewide Average		0.07	0.03	0.05	0.04	0.04	0.07	0.05	0.05

*The design value is the maximum 3-month rolling mean over the latest 3-year period. Design value greater than 0.15 ug/m3 is a violation of the National Ambient Air Quality Standard.

Table B24
2010 Filter Analysis Data

AQS ID	City	Arsenic				Beryllium				Cadmium			
		Total Samples	Highs 1st	Highs 2nd	Annual Mean	Total Samples	Highs 1st	Highs 2nd	Annual Mean	Total Samples	Highs 1st	Highs 2nd	Annual Mean
17-031-0001	Alsip	55	0.016	0.006	0.002	-	-	-	-	55	0.003	0.003	0.001
17-031-0022	Chicago Washington High School	59	0.006	0.004	0.001	-	-	-	-	59	0.004	0.004	0.002
17-031-0026	Chicago Cermak Pump Station	61	0.009	0.004	0.001	-	-	-	-	61	0.005	0.003	0.001
17-031-0052	Chicago Mayfair Pump Station	60	0.008	0.004	0.001	-	-	-	-	60	0.002	0.002	0.001
17-031-0110	Chicago Perez Elementary	56	0.005	0.004	0.001	-	-	-	-	56	0.031	0.028	0.004
17-031-3103	Schiller Park	57	0.013	0.008	0.000	57	0.000	0.000	0.000	57	0.000	0.000	0.000
17-031-3301	Summit	56	0.004	0.004	0.001	-	-	-	-	56	0.004	0.003	0.001
17-031-4201	Northbrook	60	0.004	0.003	0.000	60	0.000	0.000	0.000	60	0.000	0.000	0.000
17-031-6003	Maywood 4th District Court	58	0.006	0.005	0.002	-	-	-	-	58	0.004	0.003	0.001
17-115-0110	Decatur Mueller	52	0.003	0.003	0.000	52	0.000	0.000	0.000	52	0.004	0.004	0.000
17-119-0010	Granite City Air Products	57	0.136	0.071	0.007	57	0.000	0.000	0.000	57	0.023	0.003	0.000
17-119-3007	Wood River	59	0.003	0.000	0.000	59	0.000	0.000	0.000	59	0.000	0.000	0.000
17-143-0037	Peoria City Office Building	57	0.000	0.000	0.000	57	0.000	0.000	0.000	57	0.000	0.000	0.000
17-143-0110	Bartonville	58	0.056	0.009	0.001	58	0.000	0.000	0.000	58	0.004	0.000	0.000
17-143-0210	Mapleton	57	0.006	0.000	0.000	57	0.000	0.000	0.000	57	0.000	0.000	0.000
17-163-0010	East St. Louis	58	0.005	0.004	0.000	58	0.000	0.000	0.000	58	0.005	0.004	0.000
17-195-0110	Sterling	57	0.003	0.003	0.000	57	0.000	0.000	0.000	57	0.007	0.004	0.000
17-201-0110	Rockford J. Rubin & Company	54	0.009	0.006	0.001	54	0.000	0.000	0.000	54	0.002	0.002	0.000

Table B24
2010 Filter Analysis Data

AQS ID	City	Total Samples	Highs		Annual Mean	Total Samples	Highs		Annual Mean	Total Samples	Highs		Annual Mean
			1st	2nd			1st	2nd			1st	2nd	
		Chromium				Iron				Manganese			
17-031-0001	Alsip	55	0.028	0.021	0.008	55	1.36	1.30	0.52	55	0.225	0.140	0.034
17-031-0022	Chicago Washington High School	59	0.066	0.039	0.013	59	4.18	3.54	1.15	59	1.090	0.695	0.166
17-031-0026	Chicago Cermak Pump Station	61	0.030	0.026	0.011	61	2.41	2.34	1.16	61	0.158	0.118	0.038
17-031-0052	Chicago Mayfair Pump Station	60	0.026	0.023	0.009	60	2.01	1.91	0.75	60	0.082	0.078	0.026
17-031-0110	Chicago Perez Elementary	56	0.022	0.020	0.008	56	1.65	1.50	0.61	56	0.109	0.079	0.026
17-031-3103	Schiller Park	57	0.011	0.007	0.004	57	3.29	2.11	1.02	57	0.095	0.069	0.028
17-031-3301	Summit	56	0.031	0.027	0.009	56	1.51	1.46	0.55	56	0.078	0.070	0.023
17-031-4201	Northbrook	60	0.037	0.034	0.001	60	5.99	2.71	0.52	60	0.148	0.070	0.015
17-031-6003	Maywood 4th District Court	58	0.059	0.056	0.020	58	4.21	3.97	2.23	58	0.198	0.189	0.062
17-115-0110	Decatur Mueller	52	0.009	0.008	0.001	52	1.56	1.37	0.78	52	0.132	0.115	0.036
17-119-0010	Granite City Air Products	57	0.017	0.014	0.005	57	4.26	3.81	1.25	57	0.427	0.361	0.091
17-119-3007	Wood River	59	0.005	0.004	0.001	59	1.01	0.96	0.45	59	0.085	0.077	0.023
17-143-0037	Peoria City Office Building	57	0.011	0.007	0.001	57	1.19	1.04	0.39	57	0.081	0.073	0.019
17-143-0110	Bartonville	58	0.040	0.032	0.005	58	5.80	3.94	0.92	58	0.385	0.323	0.055
17-143-0210	Mapleton	57	0.008	0.006	0.001	57	3.58	2.65	0.67	57	0.087	0.060	0.022
17-163-0010	East St. Louis	58	0.005	0.005	0.001	58	2.32	1.81	0.75	58	0.091	0.081	0.025
17-195-0110	Sterling	57	0.030	0.028	0.006	57	3.92	3.15	1.08	57	0.604	0.468	0.094
17-201-0110	Rockford J. Rubin & Company	54	0.011	0.009	0.003	54	4.92	4.49	1.55	54	0.423	0.353	0.088

Table B24
2010 Filter Analysis Data

AQS ID	City	Nickel				Nitrates				Sulfates			
		Total Samples	Highs 1st	Highs 2nd	Annual Mean	Total Samples	Highs 1st	Highs 2nd	Annual Mean	Total Samples	Highs 1st	Highs 2nd	Annual Mean
17-031-0001	Alsip	55	0.011	0.011	0.006	55	30.1	19.9	5.6	55	15.2	12.6	6.7
17-031-0022	Chicago Washington High School	59	0.040	0.015	0.008	59	34.0	18.3	4.7	59	14.3	13.8	7.2
17-031-0026	Chicago Cermak Pump Station	61	0.013	0.011	0.007	61	31.3	20.8	5.0	61	15.8	13.8	6.4
17-031-0052	Chicago Mayfair Pump Station	60	0.010	0.010	0.006	60	29.1	13.7	4.6	60	11.6	11.0	5.8
17-031-0110	Chicago Perez Elementary	56	0.012	0.012	0.007	56	26.2	18.3	5.2	56	14.6	12.6	6.4
17-031-3103	Schiller Park	57	0.007	0.004	0.001	-	-	-	-	-	-	-	-
17-031-3301	Summit	56	0.016	0.014	0.007	56	33.9	11.0	4.6	56	15.6	14.0	6.2
17-031-4201	Northbrook	60	0.011	0.004	0.000	-	-	-	-	-	-	-	-
17-031-6003	Maywood 4th District Court	58	0.017	0.016	0.010	58	31.5	26.2	5.1	58	18.2	17.7	6.9
17-115-0110	Decatur Mueller	52	0.018	0.012	0.002	-	-	-	-	-	-	-	-
17-119-0010	Granite City Air Products	57	0.184	0.006	0.004	-	-	-	-	-	-	-	-
17-119-3007	Wood River	59	0.009	0.003	0.000	-	-	-	-	-	-	-	-
17-143-0037	Peoria City Office Building	57	0.004	0.003	0.000	-	-	-	-	-	-	-	-
17-143-0110	Bartonville	58	0.008	0.005	0.001	-	-	-	-	-	-	-	-
17-143-0210	Mapleton	57	0.006	0.004	0.000	-	-	-	-	-	-	-	-
17-163-0010	East St. Louis	58	0.004	0.004	0.000	-	-	-	-	-	-	-	-
17-195-0110	Sterling	57	0.019	0.006	0.001	-	-	-	-	-	-	-	-
17-201-0110	Rockford J. Rubin & Company	54	0.008	0.007	0.002	-	-	-	-	-	-	-	-

Table B25
2010 Toxic Compounds[1]

AQS ID	City	Compounds	Highest 24-hour Samples (ppbc)				Annual Average
			1st	2nd	3rd	4th	
17-031-4201	Northbrook	1,3 Butadiene	2.1	2.0	1.4	1.2	0.2
		Methylene Chloride	6.0	2.9	2.3	2.0	0.6
		Chloroform	4.3	2.7	2.6	2.0	0.4
		Carbon Tetrachloride	0.2	0.2	0.1	0.1	0.1
		Tetrachloroethylene	0.3	0.2	0.2	0.2	0.1
		Trichlorethylene	0.1	0.1	0.1	0.1	0.0
		1,2 Dichloropropane	0.0	0.0	0.0	0.0	0.0
		Vinyl Chloride	0.0	0.0	0.0	0.0	0.0
		Benzene	3.6	3.2	2.6	2.4	1.1
		Toluene	15.0	11.8	7.9	7.6	2.6
		Formaldehyde	116.0	43.5	19.7	13.7	4.9
		Acetaldehyde	11.8	3.7	3.1	2.2	1.3
		Acrolein	3.0	2.8	2.5	2.4	0.9
		Mercury[2]	4.97	4.80	4.70	4.47	2.41
		Chromium VI[2]	0.09	0.07	0.06	0.06	0.02
17-031-3103	Schiller Park	1,3 Butadiene	0.7	0.6	0.6	0.5	0.3
		Methylene Chloride	2.3	1.9	1.8	0.5	0.2
		Chloroform	0.1	0.1	0.0	0.0	0.0
		Carbon Tetrachloride	0.2	0.1	0.1	0.1	0.1
		Tetrachloroethylene	0.3	0.3	0.3	0.3	0.1
		Trichlorethylene	3.6	2.1	1.4	1.2	0.3
		1,2 Dichloropropane	0.0	0.0	0.0	0.0	0.0
		Vinyl Chloride	0.0	0.0	0.0	0.0	0.0
		Benzene	4.3	4.3	4.0	3.1	1.8
		Toluene	14.4	9.2	8.5	7.5	3.1
		Formaldehyde	8.8	6.0	4.7	3.6	2.1
		Acetaldehyde	3.6	3.5	3.4	3.2	1.8
		Acrolein	6.5	5.6	3.8	3.7	1.1

[1] – Toxic metals data (As, Be, Cd, Cr, Mn, Ni) summarized in Table B24 - Filter Analysis Data

[2] – Units of nanograms per cubic meter

Table B26
2010 Semi Volatile Organic Compounds

AQS ID	City	Compounds	Highest 24-hour Samples (ng/m3)				Annual Average
			1st	2nd	3rd	4th	
17-031-4201	Northbrook	Acenaphthene	74.2	30.8	30.1	29.5	10.5
		Fluoranthene	29.8	26.8	25.4	16.0	6.2
		Fluorene	65.3	37.7	31.0	30.1	10.7
		Naphthalene	869.0	363.0	292.0	278.0	106.0
		Phenanthrene	120.0	97.8	90.8	73.0	26.4
		Pyrene	12.0	11.1	9.9	7.6	2.6

Table B27
2010 PM2.5 Speciation

AQS ID	City	Major Constituents	Highest 24-hour Samples (ug/m3)				Annual Average
			1st	2nd	3rd	4th	
17-031-0076	Chicago Com Ed Maintenance	Inorganic Elements	1.5	1.2	1.1	1.0	0.4
		Ammonium	7.6	6.2	5.9	4.6	1.4
		Nitrate	18.1	16.5	10.7	9.8	2.5
		Sulfate	8.6	5.9	5.6	5.5	2.2
		Elemental Carbon	1.7	1.2	1.2	0.9	0.5
		Organic Carbon	7.9	5.9	5.0	4.8	2.5
17-031-0057	Chicago Springfield Pump Station	Inorganic Elements	2.3	2.0	1.2	1.2	0.6
		Ammonium	6.0	4.9	4.0	3.8	1.4
		Nitrate	16.5	10.1	9.8	8.4	2.9
		Sulfate	5.5	5.3	5.3	4.6	2.2
		Elemental Carbon	1.5	1.3	1.1	1.1	0.5
		Organic Carbon	8.2	7.5	5.2	4.9	2.9
17-031-4201	Northbrook	Inorganic Elements	1.1	1.0	1.0	0.8	0.4
		Ammonium	5.0	4.3	4.2	3.5	1.2
		Nitrate	14.5	9.6	9.0	8.9	2.2
		Sulfate	8.0	5.2	4.7	4.4	2.1
		Elemental Carbon	1.5	1.0	0.7	0.7	0.3
		Organic Carbon	7.4	7.0	4.6	3.9	2.4
17-043-4002	Naperville	Inorganic Elements	1.6	1.4	1.4	1.3	0.4
		Ammonium	5.5	4.6	3.7	3.6	1.4
		Nitrate	14.9	10.3	10.3	9.2	2.6
		Sulfate	7.1	5.6	5.5	5.2	2.1
		Elemental Carbon	1.2	0.9	0.7	0.7	0.4
		Organic Carbon	7.2	5.5	5.5	5.0	2.5

Table B27
2010 PM2.5 Speciation

AQS ID	City	Major Constituents	Highest 24-hour Samples (ug/m3)				Annual Average
			1st	2nd	3rd	4th	
17-119-0024	Granite City Gateway Medical Center	Inorganic Elements	6.6	5.5	4.7	4.6	1.6
		Ammonium	3.4	3.3	2.8	2.7	1.3
		Nitrate	7.3	6.8	5.9	5.8	2.0
		Sulfate	5.8	5.3	5.2	4.8	2.7
		Elemental Carbon	2.1	1.4	1.4	1.4	0.6
		Organic Carbon	5.6	5.3	5.2	5.0	2.9

Table B28
2010 Carbon Dioxide (CO_2)

AQS ID	City	Annual Means (ppm)					
		2010	2009	2008	2007	2006	2005
17-117-0002	Nilwood	394	384	380	379	390	383
Hawaii	Mauna Loa	390	387	386	384	382	380

APPENDIX C
POINT SOURCE EMISSION INVENTORY SUMMARY TABLES

Table C1

Carbon Monoxide Point Source Emission Distribution (Tons/Year)

Category	2006	2007	2008	2009	2010
External Fuel Combustion					
Electric Generation	14,803.8	14,623.7	15,185.6	15,467.6	18,540.9
Industrial	7,718.8	7,266.8	7,488.4	8,004.3	7,261.6
Commercial/Institutional	2,345.6	2,143.3	2,063.5	2,039.0	1,830.2
Space Heating	22.9	22.7	21.3	22.8	23.8
Internal Fuel Combustion					
Electric Generation	2,736.4	2,571.4	3,158.0	3,129.5	3,196.8
Industrial	5,060.1	4,852.8	5,573.0	5,878.8	5,178.2
Commercial/Institutional	637.5	631.5	409.9	373.3	355.6
Engine Testing	470.1	406.8	359.9	377.5	316.4
Industrial Processes					
Chemical Manufacturing	3,186.9	2,474.4	2,366.9	2,246.2	1,446.1
Food/Agriculture	7,465.5	3,430.3	3,483.1	3,598.5	3,237.1
Primary Metal Production	20,861.6	22,408.7	20,480.0	20,831.4	9,947.8
Secondary Metal Production	2,443.3	3,497.9	4,683.5	3,173.4	2,646.3
Mineral Products	9,686.9	5,880.0	5,524.0	4,793.9	3,640.1
Petroleum Industry	6,094.2	6,087.8	5,970.0	4,736.0	4,018.8
Paper and Wood Products	10.2	38.3	38.3	65.5	38.0
Rubber and Plastic Products	19.2	40.1	37.9	79.5	33.5
Fabricated Metal Products	1,568.3	1,058.0	299.8	272.9	235.9
Oil and Gas Production	258.2	307.0	339.5	252.2	211.5
Electrical Equipment	2.2	2.3	2.2	2.2	2.2
Transportation Equipment	6.1	7.7	8.0	5.1	5.1
Health Services	262.7	268.6	306.6	317.6	343.1
In-Process Fuel Use	1,176.6	398.2	364.3	338.3	154.4
Miscellaneous Manufacturing	98.8	100.5	71.3	88.0	143.8
Organic Solvent Emissions					
Organic Solvent Use	0.0	0.0	0.0	0.0	
Surface Coating Operations	191.6	188.7	177.6	150.8	164.8
Petroleum Product Storage	0.0	0.0	0.0	0.0	
Bulk Terminals/Plants	19.3	19.4	17.5	17.4	17.5
Printing/Publishing	34.5	33.6	10.1	5.8	5.6
Petroleum Marketing/Transport	13.4	8.8	0.0	57.4	6.7
Organic Chemical Storage (large)	0.9	0.9	0.4	0.4	
Organic Chemical Transportation	0.0	0.0	0.0	0.0	
Organic Solvent Evaporation	37.0	37.5	37.1	30.2	30.3
Solid Waste Disposal					
Government	1,688.8	1,506.9	1,526.1	1,495.1	1,993.0
Commercial/Institutional	119.1	108.3	90.6	86.9	68.7
Industrial	646.1	515.4	515.6	764.3	689.0
Site Remediation	25.9	29.1	16.2	16.2	14.2

Table C1

Carbon Monoxide Point Source Emission Distribution (Tons/Year)

Category	2006	2007	2008	2009	2010
MACT Processes					
Food and Agriculture Processes	2.0	1.3	0.0	0.0	
Vinyl Based Resins	0.7	0.1	0.0	0.0	0.1
Totals	**89,716.7**	**80,968.8**	**80,627.9**	**78,719.6**	**65,797.2**

Table C2

Nitrogen Oxides Point Source Emission Distribution (Tons/Year)

Category	2006	2007	2008	2009	2010
External Fuel Combustion					
Electric Generation	128,666.9	122,337.1	118,842.1	121,547.1	73,871.1
Industrial	19,042.4	16,403.3	14,271.4	14,397.1	11,915.1
Commercial/Institutional	3,296.5	2,962.7	2,904.5	2,783.7	2,527.3
Space Heating	113.2	112.4	105.2	114.3	117.4
Internal Fuel Combustion					
Electric Generation	4,616.3	4,386.3	4,447.1	3,220.6	2,820.0
Industrial	23,109.0	18,984.8	22,643.7	21,769.7	20,921.5
Commercial/Institutional	913.1	1,016.7	887.9	829.0	773.8
Engine Testing	853.0	1,010.2	939.2	896.3	573.2
Industrial Processes					
Chemical Manufacturing	1,262.8	1,355.3	1,223.8	1,197.9	1,484.9
Food/Agriculture	1,593.3	1,127.1	1,300.7	1,617.3	1,751.1
Primary Metal Production	1,413.3	2,207.5	2,298.8	2,251.9	1,199.6
Secondary Metal Production	1,036.6	1,201.0	1,303.2	1,182.3	865.9
Mineral Products	15,535.3	16,827.3	16,048.8	13,508.7	8,692.5
Petroleum Industry	11,330.6	10,594.2	11,237.7	8,564.1	7,751.7
Paper and Wood Products	4.3	35.4	35.4	17.0	6.9
Rubber and Plastic Products	28.5	38.9	36.3	84.5	42.4
Fabricated Metal Products	434.9	416.0	395.5	363.5	316.9
Oil and Gas Production	862.0	1,058.0	830.7	811.3	756.3
Miscelaneous Machinery	2.9	2.9	2.6	9.1	9.2
Electrical Equipment	4.6	4.7	3.4	2.9	3.0
Transportation Equipment	0.2	0.3	0.2	0.1	0.2
Health Services	7.1	7.1	7.1	7.0	7.1
Textile Products	0.9	0.9	0.9	0.9	0.9
In-Process Fuel Use	3,297.6	1,872.5	1,653.4	1,596.1	450.1
Miscellaneous Manufacturing	47.8	47.0	41.5	46.5	53.8
Organic Solvent Emissions					
Organic Solvent Use	0.0	0.0	0.0	0.0	
Surface Coating Operations	493.6	437.8	413.4	394.0	415.8
Petroleum Product Storage	0.0	0.0	0.0	0.0	
Bulk Terminals/Plants	24.4	24.5	16.4	16.4	16.4
Printing/Publishing	50.8	53.0	13.7	13.2	9.0
Petroleum Marketing/Transport	6.6	5.8	2.3	25.3	4.8
Organic Chemical Storage (large)	0.1	0.2	0.1	0.1	
Organic Chemical Transportation	1.0	0.0	0.0	0.0	
Organic Solvent Evaporation	25.4	42.7	42.3	40.0	40.1

Table C2

Nitrogen Oxides Point Source Emission Distribution (Tons/Year)

Category	2006	2007	2008	2009	2010
Solid Waste Disposal					
Government	794.8	727.6	779.5	567.7	681.3
Commercial/Institutional	34.0	24.8	18.3	16.8	14.3
Industrial	253.4	234.5	240.0	258.8	226.9
Site Remediation	35.4	39.3	24.9	24.9	22.7
MACT Processes					
Food and Agriculture Processes	1.6	1.1	0.0	0.0	
Vinyl Based Resins	3.5	0.4	0.4	0.4	0.4
Totals	**219,199.7**	**205,602.5**	**203,013.7**	**198,178.1**	**138,343.8**

Table C3

PM10 Point Source Emission Distribution (Tons/Year)

Category	2006	2007	2009	2009	2010
External Fuel Combustion					
Electric Generation	8,613.1	8,126.1	7,740.7	8,454.8	8,065.1
Industrial	2,092.8	2,008.5	1,779.6	1,739.4	1,553.5
Commercial/Institutional	282.2	283.4	285.5	282.0	245.6
Space Heating	3.8	3.8	3.5	3.6	3.9
Internal Fuel Combustion					
Electric Generation	288.2	252.7	295.0	229.2	243.0
Industrial	297.0	269.7	320.4	315.7	275.7
Commercial/Institutional	36.9	39.7	37.4	43.7	43.9
Engine Testing	19.6	22.0	21.9	29.6	19.7
Industrial Processes					
Chemical Manufacturing	1,009.5	1,024.0	961.9	943.2	927.9
Food/Agriculture	8,085.2	7,350.8	7,516.1	7,083.1	7,141.3
Primary Metal Production	1,385.6	1,298.8	1,269.4	1,213.7	790.9
Secondary Metal Production	1,504.8	1,473.8	1,575.5	1,573.9	1,351.6
Mineral Products	9,952.7	8,398.1	8,347.5	6,565.1	6,486.5
Petroleum Industry	2,048.4	2,104.5	1,990.6	1,708.4	1,593.4
Paper and Wood Products	217.5	197.3	252.5	227.6	219.4
Rubber and Plastic Products	136.7	157.7	159.9	189.5	192.7
Fabricated Metal Products	274.9	285.1	273.3	282.9	320.8
Oil and Gas Production	2.8	4.2	6.0	7.0	7.5
Building Construction		0.0	0.0	3.0	2.0
Miscelaneous Machinery	17.3	20.0	13.4	13.4	13.5
Electrical Equipment	3.7	4.1	3.5	2.8	2.5
Transportation Equipment	12.4	17.8	17.6	14.0	7.8
Health Services	46.6	56.3	74.2	83.2	94.2
Leather and Leather Products	3.4	3.5	3.3	3.3	3.3
Textile Products	0.0	0.1	0.0	0.0	0.1
Process Cooling	328.7	349.0	387.1	375.3	384.4
In-Process Fuel Use	208.0	161.1	150.2	143.7	43.3
Miscellaneous Manufacturing	39.6	50.4	33.9	30.0	25.3
Organic Solvent Emissions					
Organic Solvent Use	0.1	0.3	0.0	0.0	
Surface Coating Operations	272.4	213.9	229.0	224.7	199.7
Petroleum Product Storage	0.0	0.0	0.0	0.0	
Bulk Terminals/Plants	1.3	1.3	1.3	1.3	12.9
Printing/Publishing	9.1	9.3	6.1	3.1	2.9
Petroleum Marketing/Transport	0.0	0.0	0.0	0.4	0.4
Organic Chemical Storage (large)	0.8	0.9	6.3	3.7	4.8
Organic Chemical Transportation	0.0	0.0	0.0	0.0	
Organic Solvent Evaporation	2.0	2.5	1.7	1.7	1.7

Table C3

PM10 Point Source Emission Distribution (Tons/Year)

Category	2006	2007	2008	2009	2010
Solid Waste Disposal					
Government	367.5	341.9	354.1	349.8	355.9
Commercial/Institutional	23.4	21.3	16.1	14.9	11.0
Industrial	138.2	125.4	106.7	95.9	84.7
Site Remediation	27.0	21.7	84.8	75.9	48.2
MACT Processes					
Food and Agriculture Processes	0.1	0.1	0.0	0.0	0.0
Styrene or Methacrylate Based Resins	0.4	2.0	1.9	0.7	0.8
Alkyd Resin Production	3.1	3.5	3.8	72.0	4.8
Vinyl Based Resins	207.1	127.4	127.3	129.8	129.9
Miscellaneous Polymers	9.1	8.6	8.5	9.8	9.6
Inorganic Chemicals					0.3
Consumer Products Manufacturing		0.2	0.3	0.3	0.2
Paint Stripper Use	0.8	1.0	0.2	0.2	
Miscellaneous Processes		0.1	1.0	1.0	1.0
Phthalate Plasticizers Production	3.0	3.1	3.1	3.1	3.2
Totals	**37,978.7**	**34,846.6**	**34,474.1**	**32,551.4**	**30,930.9**

Table C4

Sulfur Dioxide Point Source Emission Distribution (Tons/Year)

Category	2006	2007	2008	2009	2010
External Fuel Combustion					
Electric Generation	336,631.3	292,645.7	284,032.6	271,264.7	242,045.6
Industrial	56,161.8	51,539.0	35,257.4	35,929.6	30,458.6
Commercial/Institutional	5,761.1	5,360.3	5,227.7	4,528.6	4,265.9
Space Heating	1.3	0.9	0.9	0.6	0.8
Internal Fuel Combustion					
Electric Generation	167.5	141.2	163.8	185.8	330.8
Industrial	151.0	134.9	147.9	118.5	108.9
Commercial/Institutional	58.9	58.1	60.4	55.4	64.8
Engine Testing	37.5	26.2	19.5	99.6	66.7
Industrial Processes					
Chemical Manufacturing	16,870.3	15,286.7	9,901.2	8,107.9	1,020.1
Food/Agriculture	2,575.5	1,698.9	1,602.3	1,387.4	1,341.0
Primary Metal Production	1,563.5	2,126.7	2,413.2	2,282.7	1,119.7
Secondary Metal Production	142.0	122.7	130.1	151.3	122.0
Mineral Products	18,033.2	13,465.2	18,028.2	17,905.4	13,347.2
Petroleum Industry	43,914.5	42,599.4	45,037.0	29,034.1	7,875.6
Paper and Wood Products	0.0	1.3	1.2	1.7	0.6
Rubber and Plastic Products	4.5	4.6	4.5	4.8	4.7
Fabricated Metal Products	20.1	16.3	16.3	16.3	16.2
Oil and Gas Production	563.2	618.0	618.1	402.9	378.3
Miscelaneous Machinery	0.0	0.0			
Electrical Equipment	0.5	0.6	0.0	0.0	0.0
Transportation Equipment	0.1	0.2	0.1	0.1	0.1
Health Services	7.6	7.6	7.6	7.6	7.7
Process Cooling	38.0	2.1	2.0	2.0	0.0
In-Process Fuel Use	4,027.9	3,271.7	3,227.5	3,082.3	669.3
Miscellaneous Manufacturing	60.7	64.6	28.4	28.4	63.0
Organic Solvent Emissions					
Surface Coating Operations	0.0	0.0	0.0	0.0	3.1
Petroleum Product Storage	3.5	3.1	3.0	2.6	7.7
Printing/Publishing	0.2	0.3	0.0	7.4	0.0
Organic Chemical Transportation	0.0	0.0	0.0	0.0	
Organic Chemical Storage (large)	0.0	0.0	0.1	0.0	0.1
Organic Solvent Evaporation	3.1	3.2	3.2	3.1	3.2

Table C4

Sulfur Dioxide Point Source Emission Distribution (Tons/Year)

Category	2006	2007	2008	2009	2010
Solid Waste Disposal					
Government	427.1	374.2	378.0	425.9	691.8
Commercial/Institutional	10.9	6.5	3.7	3.2	2.7
Industrial	199.4	189.3	380.9	559.0	487.3
Site Remediation	5.2	5.7	6.0	5.6	5.7
MACT Processes					
Food and Agriculture Processes	145.0	200.8	200.5	200.5	199.7
Miscellaneous Processes	0.2	0.2	0.0	0.0	0.0
Totals	**487,588.3**	**429,976.3**	**406,904.8**	**375,806.5**	**304,708.9**

Table C5

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

Category	2006	2007	2008	2009	2010
External Fuel Combustion					
Electric Generation	1,453.8	1,513.6	1,602.0	1,582.7	1,312.9
Industrial	448.7	405.9	482.3	385.3	354.3
Commercial/Institutional	133.2	120.9	116.0	106.9	101.3
Space Heating	5.6	5.6	5.4	5.7	6.2
Internal Fuel Combustion					
Electric Generation	644.8	721.5	715.5	709.6	656.5
Industrial	1,025.0	878.4	1,044.5	1,043.1	1,032.3
Commercial/Institutional	88.2	100.8	74.0	68.4	70.7
Engine Testing	73.6	69.1	64.8	125.9	116.7
Fugitive Emissions	0.0	0.0			
Industrial Processes					
Chemical Manufacturing	16,204.1	9,093.7	7,502.8	6,606.6	6,349.6
Food/Agriculture	13,800.3	12,040.9	11,785.6	11,887.5	10,549.7
Primary Metal Production	680.0	693.8	709.5	681.1	379.9
Secondary Metal Production	1,245.9	1,180.3	1,209.6	1,024.8	812.4
Mineral Products	1,919.3	1,857.2	1,734.3	1,702.0	1,504.6
Petroleum Industry	1,524.4	2,290.7	2,098.4	2,068.4	2,021.2
Paper and Wood Products	189.5	164.7	178.8	150.2	169.3
Rubber and Plastic Products	2,369.2	2,378.0	2,322.9	2,200.9	2,130.5
Fabricated Metal Products	1,010.4	784.5	810.7	778.1	748.3
Oil and Gas Production	351.3	276.7	321.7	302.7	314.1
Miscelaneous Machinery	80.0	85.5	86.9	90.7	65.9
Electrical Equipment	106.9	93.5	87.3	64.2	50.9
Transportation Equipment	330.9	322.6	342.1	261.3	135.8
Health Services	53.8	47.1	42.2	41.9	47.7
Leather and Leather Products	88.2	68.5	50.4	50.0	42.7
Textile Products	6.5	5.5	5.4	3.0	3.0
Process Cooling	227.4	242.8	212.9	225.0	272.5
In-Process Fuel Use	124.3	25.5	25.2	20.7	18.5
Miscellaneous Manufacturing	298.5	285.4	273.2	255.0	196.7
Organic Solvent Emissions					
Organic Solvent Use	697.7	691.8	630.0	646.4	607.5
Surface Coating Operations	9,961.1	9,131.0	8,786.0	7,707.3	6,644.3
Petroleum Product Storage	3,635.6	3,124.4	3,034.0	2,970.0	3,083.8
Bulk Terminals/Plants	1,455.6	1,289.1	1,225.3	1,350.8	1,338.1
Printing/Publishing	5,449.9	4,610.1	4,845.3	5,061.3	4,675.8
Petroleum Marketing/Transport	526.4	466.4	467.9	464.9	548.9
Organic Chemical Storage (large)	1,230.9	1,066.7	1,114.4	1,207.0	1,100.8
Organic Chemical Transportation	73.4	180.3	84.5	106.9	84.1
Dry Cleaning (petroleum based)	564.1	590.6	611.8	565.3	524.1
Organic Chemical Storage (small)	0.0	0.0	0.0	0.0	
Organic Solvent Evaporation	539.8	491.0	512.1	556.4	525.4

Table C5

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

Category	2006	2007	2008	2009	2010
Solid Waste Disposal					
Government	621.8	404.8	408.2	454.9	420.2
Commercial/Institutional	12.4	10.8	8.3	6.9	5.4
Industrial	128.8	90.9	92.1	94.8	80.0
Site Remediation	871.6	556.9	738.3	464.2	386.7
MACT Processes					
Food and Agriculture Processes	19.5	24.0	23.8	100.3	26.0
Agricultural Chemical Production	0.1	1.1	1.0	1.0	1.1
Styrene or Methacrylate Based Resins	25.8	48.2	40.1	17.6	16.2
Alkyd Resin Production	58.4	59.5	78.0	86.8	87.7
Vinyl Based Resins	181.5	89.7	89.7	100.7	94.1
Miscellaneous Polymers	13.7	13.8	14.2	0.9	1.0
Inorganic Chemicals Manufacturing	3.1	3.2	16.2	16.2	16.3
Consumer Product Mfg Facilities	282.2	310.0	392.9	228.6	228.8
Paint Stripper Use	2.8	3.0	3.0	3.0	
Miscellaneous Processes	10.7	6.3	11.1	12.0	3.0
Phthalate Plasticizers Production	4.3	4.3	0.0	0.0	12.0
Totals	**70,857.5**	**59,020.8**	**57,135.4**	**54,668.4**	**49,975.4**

Table C6

2010

Estimated County Stationary Point Source Emissions (Tons/Year)

County	Carbon Monoxide	Nitrogen Oxides	PM10	Sulfur Dioxide	Volatile Organic Material
Adams	414.0	613.9	283.0	1,481.0	773.1
Alexander	84.2	158.9	93.9	480.8	342.0
Bond	63.4	25.1	34.6	2.2	38.8
Boone	92.1	134.6	80.6	1.9	225.6
Brown	0.0	0.0	2.8	0.0	0.0
Bureau	48.2	68.9	86.2	2.2	112.6
Calhoun	0.6	0.7	6.0	0.0	3.7
Carroll	25.9	25.9	36.0	1.1	35.1
Cass	32.9	35.2	37.7	49.1	31.3
Champaign	483.1	1,039.1	213.8	756.9	414.1
Christian	745.3	7,071.5	375.8	16,950.6	341.1
Clark	26.5	9.6	59.8	1.5	97.7
Clay	14.0	16.3	53.0	0.1	84.5
Clinton	331.6	1,019.5	98.3	404.5	91.7
Coles	156.4	192.2	106.9	83.5	916.7
Cook	9,813.5	9,358.8	3,838.3	13,854.9	9,055.0
Crawford	1,011.6	2,483.7	543.0	7,207.5	1,261.9
Cumberland	5.1	4.7	24.1	0.0	39.2
DeKalb	123.9	131.1	96.7	65.8	202.7
DeWitt	180.6	97.8	76.1	32.3	91.6
Douglas	973.4	4,727.4	184.6	10,186.0	439.4
DuPage	991.6	989.0	340.0	186.7	1,658.7
Edgar	32.7	290.0	87.7	1.6	173.7
Edwards	0.5	3.8	22.2	0.0	51.0
Effingham	13.8	23.7	70.9	0.4	332.8
Fayette	53.2	94.3	42.6	378.3	45.0
Ford	53.2	99.0	195.3	22.2	779.5
Franklin	78.9	72.9	43.8	23.9	173.6
Fulton	364.2	1,322.4	84.5	624.0	137.3
Gallatin			20.4		7.2
Greene			20.7	0.2	5.5
Grundy	629.1	1,208.4	356.7	126.7	925.6
Hamilton	1.3	5.6	53.1	0.1	20.5
Hancock	1.7	0.1	49.3	0.0	4.1

Table C6

2010

Estimated County Stationary Point Source Emissions (Tons/Year)

County	Carbon Monoxide	Nitrogen Oxides	PM10	Sulfur Dioxide	Volatile Organic Material
Hardin	5.5	8.5	95.6	0.0	2.2
Henderson	1.2	1.3	44.0	2.5	2.5
Henry	816.6	2,048.8	177.0	11.7	313.5
Iroquois	28.4	23.9	146.2	4.3	469.7
Jackson	115.7	114.9	41.5	510.9	35.8
Jasper	1,159.1	3,842.7	478.7	24,894.3	157.0
Jefferson	45.4	49.6	53.4	0.4	323.9
Jersey	0.7		9.5		10.3
Jo Daviess	693.7	677.2	143.8	1.9	437.0
Johnson	28.5	22.4	46.4	107.2	6.2
Kane	480.9	601.4	255.4	44.7	1,280.4
Kankakee	696.8	2,376.2	243.7	105.2	822.5
Kendall	500.5	1,035.2	210.8	23.2	301.1
Knox	50.0	63.3	121.0	6.2	194.6
Lake	2,725.5	4,315.9	1,103.9	12,170.6	727.5
La Salle	1,124.0	2,290.3	973.4	764.6	879.4
Lawrence	11.0	14.9	13.1	1.6	29.3
Lee	266.2	137.3	374.2	8.6	214.8
Livingston	320.9	406.2	173.9	11.2	305.3
Logan	81.2	492.3	165.8	448.8	82.2
McDonough	139.4	195.8	64.3	624.9	179.2
McHenry	323.3	309.2	198.1	21.4	561.6
McLean	195.9	350.5	211.6	38.7	687.1
Macon	4,171.4	4,124.7	2,679.5	11,854.5	5,022.8
Macoupin	7.0	13.1	54.4	1.3	6.3
Madison	9,281.9	8,695.1	1,935.7	16,887.1	3,208.4
Marion	33.6	45.4	44.8	14.1	507.6
Marshall	24.0	153.5	216.3	133.8	319.3
Mason	340.7	380.2	163.2	5,028.2	57.9
Massac	1,700.0	8,990.6	784.4	25,124.9	362.8
Menard			26.3		6.7
Mercer	0.4	0.5	25.7	0.0	11.2
Monroe	10.3	21.3	15.0	0.5	15.4
Montgomery	697.7	2,349.1	139.6	13,541.0	133.8

Table C6

2010

Estimated County Stationary Point Source Emissions (Tons/Year)

County	Carbon Monoxide	Nitrogen Oxides	PM10	Sulfur Dioxide	Volatile Organic Material
Morgan	233.9	1113.4	95.1	2,745.2	203.9
Moultrie	1.8	2.7	39.5	0.1	294.3
Ogle	320.7	249.6	315.2	145.0	1,052.9
Peoria	1,952.7	5,393.2	660.8	14,493.8	1,838.6
Perry	62.0	58.3	60.1	0.5	24.3
Piatt	340.7	3,376.1	71.7	0.4	110.8
Pike	237.5	1,200.1	133.1	1,329.2	68.3
Pope					
Pulaski	60.8	84.9	59.4	17.2	9.7
Putnam	368.2	1,686.7	179.5	7,200.1	183.9
Randolph	1,819.9	4,165.7	1,817.6	24,803.2	350.4
Richland	0.6	2.6	3.7	0.0	12.8
Rock Island	608.6	606.8	243.0	1,340.5	833.6
St. Clair	724.0	466.5	238.7	104.6	612.4
Saline	76.3	31.1	23.6	25.9	53.9
Sangamon	757.4	2,095.6	358.6	3,599.2	223.7
Schuyler	6.6	12.4	11.4	0.5	6.4
Scott	32.8	21.6	43.8	6.6	2.6
Shelby	10.2	29.5	68.7	0.7	81.4
Stark			29.7		7.8
Stephenson	87.7	108.7	100.7	5.6	229.8
Tazewell	856.3	19,488.4	1,830.7	34,134.9	659.8
Union	60.8	61.1	42.6	749.3	5.8
Vermilion	563.7	1,785.4	291.3	2,743.4	2,199.3
Wabash	3.0	2.9	19.1	2.5	11.9
Warren	39.5	45.0	65.0	135.6	8.9
Washington	6.2	7.4	47.6	0.0	49.5
Wayne	225.9	713.6	14.8	0.7	68.2
White	696.1	1,004.7	43.6	3.3	51.3
Whiteside	1,385.6	417.8	176.7	178.9	187.9
Will	9,565.5	16,694.9	3,889.9	37,846.3	2,857.3
Williamson	1,098.3	1,530.9	134.0	7,702.4	176.3
Winnebago	662.6	399.3	621.8	78.8	791.0
Woodford	7.1	11.4	51.5	0.1	119.0

Table C7

Annual Estimated Emissions Trends (Tons)

Year	Carbon Monoxide	Nitrogen Oxides	PM10	Sulfur Dioxide	Volatile Organic Material
1981	240,421	826,427		1,577,992	270,814
1982	163,704	693,054		1,404,040	233,951
1983	144,622	759,453		1,363,292	207,405
1984	110,922	746,367		1,435,066	197,418
1985	107,876	715,556		1,406,300	191,070
1986	109,777	676,181		1,400,761	180,148
1987	98,213	644,511		1,379,407	176,406
1988	127,758	653,521		1,393,628	165,792
1989	132,214	610,214		1,254,474	193,499
1990	134,744	623,466		1,272,445	170,378
1991	148,667	619,161		1,239,690	154,008
1992	129,054	610,214	181,775	1,228,949	156,867
1993	130,097	556,460	113,482	1,170,549	152,288
1994	127,848	555,893	50,730	1,158,555	140,492
1995	127,661	505,966	48,839	1,273,786	141,381
1996	130,040	495,267	43,950	1,183,278	139,445
1997	117,046	510,729	41,078	1,197,404	136,541
1998	108,117	509,676	43,392	1,196,461	134,924
1999	120,906	421,993	40,598	1,085,828	99,121
2000	122,702	424,609	36,885	1,070,058	101,147
2001	96,970	358,263	34,233	653,797	95,221
2002	99,173	301,216	30,422	531,343	90,014
2003	88,367	289,921	41,589	512,321	89,579
2004	80,479	248,245	42,402	507,142	84,080
2005	83,671	238,026	40,359	522,677	75,690
2006	89,717	219,200	37,979	487,588	70,858
2007	80,969	205,602	34,847	429,976	59,021
2008	80,628	203,014	34,474	406,905	57,135
2009	78,720	198,178	32,551	375,807	54,668
2010	65,797	138,344	30,931	304,709	49,975

Table C8

Annual Source Reported Emissions Trends (Tons)

Year	Carbon Monoxide	Nitrogen Oxides	PM10	Sulfur Dioxide	Volatile Organic Material
1992	112,403	381,938	49,377	1,045,113	143,853
1993	113,781	418,209	36,737	1,001,123	108,847
1994	116,192	404,486	34,086	967,213	108,897
1995	160,256	366,978	31,491	814,229	103,144
1996	84,258	407,683	30,850	914,295	87,271
1997	71,408	404,289	25,648	974,232	76,350
1998	79,147	377,191	31,828	964,262	77,952
1999	91,153	360,850	27,663	863,759	71,514
2000	90,315	329,141	30,482	620,592	71,063
2001	83,453	291,778	28,929	531,504	62,647
2002	83,795	261,202	26,900	498,754	70,703
2003	75,511	230,068	29,939	507,338	63,495
2004	77,847	229,127	31,896	521,808	64,594
2005	85,892	215,366	30,535	486,534	62,251
2006	77,099	200,832	29,367	429,573	53,791
2007	77,211	198,073	28,784	406,405	50,933
2008	75,183	193,637	28,194	376,627	49,112
2009	62,285	134,274	25,988	305,297	41,839

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 air pollution advisories 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 escess 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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