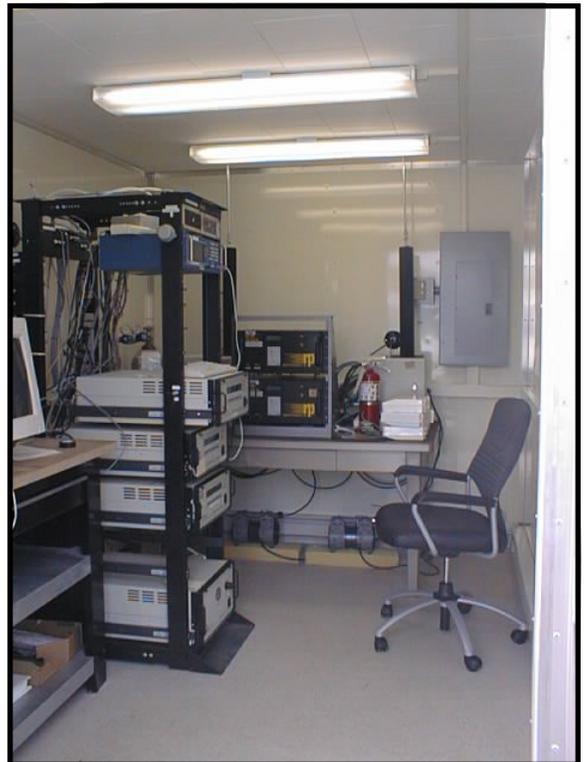


DIVISION FOR AIR QUALITY

# Kentucky Annual Ambient Air Monitoring Network Plan 2008



Commonwealth of Kentucky Environmental & Public Protection Cabinet  
Department for Environmental Protection  
Division for Air Quality  
803 Schenkel Lane, Frankfort, Kentucky 40601



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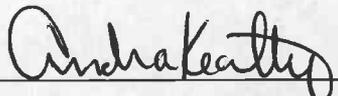
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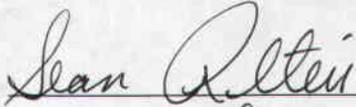
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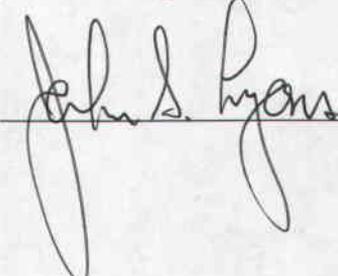
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**CERTIFICATION**

By the signatures below, the Kentucky Division for Air Quality certifies that the information contained in this Surveillance Network document for sampling year 2008 is complete and accurate at the time of submittal to EPA Region 4. However, due to circumstances that may arise during the sampling year, some network information may change. A notification of change and a request for approval will be submitted to EPA Region 4 at that time.

Print Name: Andrea P. Keatley Signature:  Date: 6/30/08  
Environmental  
Scientist II

Print Name: Sean Alteri Signature:  Date: 6/30/08  
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## **PUBLIC NOTIFICATION AND COMMENT PERIOD**

In accordance with 40 C.F.R. 58.10(a)(1), the Kentucky Environmental and Public Protection Cabinet shall make the annual monitoring network plan available for public inspection for at least 30 days prior to submission to the U.S. EPA. The annual monitoring network plan details the operation and location of ambient air monitors operated by the Kentucky Division for Air Quality (KYDAQ), Louisville Metro Air Pollution Control District (LMAPCD), the National Park Service (NPS), and required industrial monitors.

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## ACRONYMS

<b>AEM</b>	– Automated Equivalent Method
<b>AQI</b>	– Air Quality Index
<b>AQS</b>	– Air Quality System
<b>ARM</b>	– Automated Reference Method
<b>CBSA</b>	– Core-Based Statistical Area
<b>CSA</b>	– Combined Statistical Area
<b>FAM</b>	– Federal Alternate Method
<b>FEM</b>	– Federal Equivalent Method
<b>FRM</b>	– Federal Reference Method
<b>KYDAQ</b>	– Kentucky Division for Air Quality
<b>LMAPCD</b>	– Louisville Metro Air Pollution Control District
<b>MSA</b>	– Metropolitan Statistical Area
<b>NAAQS</b>	– National Ambient Air Quality Standards
<b>NAMS</b>	– National Air Monitoring Stations
<b>SAMWG</b>	– Standing Air Monitoring Working Group
<b>SLAMS</b>	– State and Local Air Monitoring Stations
<b>SPM</b>	– Special Purpose Monitors
<b>U.S.EPA</b>	– United States Environmental Protection Agency
<b>UV</b>	– Ultra Violet
<b>VOC</b>	– Volatile Organic Compounds

## INTRODUCTION

In October 1975, the United State Environmental Protection Agency (U.S.EPA) established a work group to critically review and evaluate current air monitoring activities at that time. This group was named the Standing Air Monitoring Working Group (SAMWG). The review by the SAMWG indicated several areas where deficiencies existed which needed correction. The principal areas needing correction were: an excess of monitoring sites in some areas to assess air quality; existing regulations did not allow for flexibility to conduct special purpose monitoring studies; data reporting was untimely and incomplete caused by a lack of uniformity in station location and probe siting, sampling methodology, quality assurance practices, and data handling procedures.

In August 1978, recommendations developed by SAMWG, to remedy the deficiencies in the existing monitoring activities, were combined with the new requirements of Section 319 of the Clean Air Act. Section 319 provided for the development of uniform air quality monitoring criteria and methodology; reporting of a uniform air quality index in major urban areas; and the establishment of an air quality monitoring system nation-wide which utilizes uniform monitoring criteria and provides for monitoring stations in major urban areas that supplement State monitoring. The combination of the recommendations and requirements were included in a proposed revision to the air monitoring regulations.

In May 1979, air monitoring regulations were finalized by the U.S.EPA requiring certain modifications and additions to be included in the State Implementation Plan for air quality surveillance. These regulations require each state to operate a network of monitoring stations designated as State and Local Air Monitoring Stations (SLAMS) that measure ambient concentrations of air pollutants for which standards have been established. The SLAMS designation contains provisions concerning the conformity to specific siting and monitoring criteria not previously required. The regulations

also provide for an annual review of the monitoring network to insure objectives are being met and to identify needed modification.

The Kentucky Division for Air Quality (KYDAQ) has operated an air quality monitoring network in the Commonwealth since July 1967. The Louisville Metro Air Pollution Control District (LMAPCD), a local agency, has maintained a sub-network in its area of jurisdiction since January 1956. Since that time, the networks have been expanded in accordance with the U.S.EPA's regulations to consist of a current overall network of 44 stations, operated by KYDAQ, LMAPCD and the National Park Service. The Commonwealth's SLAMS air monitoring network monitors criteria pollutants for which the National Ambient Air Quality Standards (NAAQS) have been issued. In addition to a SLAMS network, KYDAQ's air monitoring network includes special purpose monitors (SPM) for air toxics, mercury, wet deposition and meteorological stations.

The annual monitoring network description, as provided for in 40 CFR Part 58.10, *Annual monitoring network plan and periodic network assessment*, must contain the following information for each monitoring station in the network:

1. The Air Quality System (AQS) site identification number for existing stations.
2. The location, including the street address and geographical coordinates, for each monitoring station.
3. The sampling and analysis method used for each measured parameter.
4. The operating schedule for each monitor.
5. Any proposal to remove or move a monitoring station within a period of eighteen months following the plan submittal.

6. The monitoring objective and spatial scale of representativeness for each monitor.
7. The identification of any site that is suitable for comparison against the PM2.5 NAAQS.
8. The Metropolitan Statistical Area (MSA), Core-Based Statistical Area (CBSA), Combined Statistical Area (CSA) or other area represented by the monitor.

The following document constitutes the Kentucky ambient air monitoring network description and is organized into three main parts:

- (1) Station Description Format: An outline of the designations, parameters, monitoring methods, and the basis for site selection.
- (2) Network Summaries: Presenting the total number of sites and monitors in each region and for the state. Also included is a listing of all proposed changes to the current network.
- (3) Air Monitoring Station Description: Each air monitor station is described in detail as per the outline in (1) above.

Modification to the network as determined by an annual review process will be made each year to maintain a current up-to-date network description document.

## **STATION DESCRIPTION FORMAT**

### **AQS Site Identification Information**

Pertinent, specific siting information for each site and monitor is stored in the U.S. EPA's AQS data system. This information includes the exact location of the site, local and regional population, description of the site location, monitor types, and monitoring objectives. This site and monitor information is routinely updated whenever there is a change in site characteristics or pollutants monitored.

### **Network Station Description**

The network station descriptions contained in this document include the following information:

#### **1. Site Description**

Specific information is provided to show the location of the monitoring equipment at the site, if the site is located in a CSA/MSA, the AQS identification number, the GPS coordinates, and that monitors and monitor probes conform to the siting criteria.

#### **2. Date Established**

The date when each existing monitoring station was established is shown in the description. For those stations, which are proposed, a date is provided when it is expected for the station to be in operation.

#### **3. Site Approval Status**

Each monitoring station in the existing network has been reviewed with the purpose of determining whether it meets all design criteria for inclusion in the SLAMS network. Stations that do not meet the criteria will either be relocated in the immediate area or when possible, re-sited at the present location.

#### **4. Monitoring Objectives**

The monitoring network was designed to provide information to be used as a basis for the following actions:

- (a) To determine compliance with ambient air quality standards and to plan measures to attain these standards.
- (b) To activate emergency control procedures in the event of an impending air pollution episode.
- (c) To observe pollution trends throughout a region including rural areas and report progress made toward meeting ambient air quality standards.
- (d) To provide a database for the evaluation of the effects of air quality on population, land use, and transportation planning; to provide a database for the development and evaluation of air dispersion models.

#### **5. Monitoring Stations' Designations**

Most stations described in the air quality surveillance network are designated as "SLAMS". In addition, some of these stations fulfill other requirements, which must be identified. In this description of the network, designations are also made for National Air Monitoring Stations (NAMS), Special Purpose Monitors (SPM), Emergency Episode Monitoring sites and Air Quality Index sites (AQI). The following is the criteria used for each of these designations.

**SLAMS:** Requirements for air quality surveillance systems provide for the establishment of a network of monitoring stations designated as State and Local Air Monitoring Stations (SLAMS) that measure ambient concentrations of those pollutants for which standards have been established. These stations must meet

requirements that relate to four major areas: quality assurance, monitoring methodology, sampling interval and siting of instruments and instrument probes.

**NAMS:** Within the SLAMS network certain monitors are selected to provide the U.S. EPA with timely data for use in national trends analysis. These NAMS monitors are identified in the summary of network stations.

### **EMERGENCY EPISODE**

**MONITORING SITES (EPISODE):** Regulations provide for the operation of at least one continuous SLAMS monitor for each major pollutant in designated locations for emergency episode monitoring. These monitors are placed in areas of worst air quality and provide continual surveillance during episode conditions.

**AIR QUALITY INDEX (AQI):** Certain stations in the SLAMS network provide data for daily index reporting. Index reporting is required for all urban areas with a population exceeding 200,000. However, KYDAQ is providing this service to the general public from all areas where monitoring and attending staff are available. The AQI is a method of reporting that converts concentration levels of pollution to a simple number scale of 0-500. Intervals on the AQI scale are related to potential health effects of the daily measured concentrations of the major pollutants. KYDAQ prepares the Index twice daily for release to the public from the pollutant data reported from the Field Offices.

**SPM:** Not all monitors and monitoring stations in the air quality surveillance network are included in the SLAMS network. In order to allow the capability of providing monitoring for complaint studies, modeling verification and compliance status, certain monitors are

reserved for short-term studies and designated as Special Purpose Monitors (SPM). These monitors are not committed to any one location or for any specified time period. They may be located as separate monitoring stations or be included at SLAMS locations. Monitoring data may be reported, provided that the monitors and stations conform to all requirements of the SLAMS network.

## **6. Monitoring Methods**

All sampling and analytical procedures used in the air-monitoring network conform to Federal reference (FRM), alternate (FAM) or equivalent (FEM) methods. In case there is no federal method, procedures are described in the Kentucky Air Quality Monitoring and Quality Assurance Manuals.

### (a) **Particulate Matter 10 microns in size (PM<sub>10</sub>)**

All PM<sub>10</sub> samplers operated by the Division for Air Quality are certified as either FRM or FEM samplers and are operated according to the requirements set forth in 40 CFR 50 and 40 CFR 53. Intermittent samplers collect a 24-hour sample every sixth day on 46.2 mm PTFE filters. The filter is weighed before and after the sample run. The gain in weight in relation to the volume of air sampled is calculated in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). The PTFE filters are to be equilibrated before each weighing for a minimum of 24 hours at a 20-23 degrees C mean temperature and a 30-40 % mean relative humidity.

Continuous PM<sub>10</sub> samplers provide 24-hour samples daily for SLAMS reporting. During sampling, ambient air passes through an inlet designed to pass only particles smaller than 10 microns in diameter. After exiting the inlet, the sample stream is sent to a mass

transducer. Inside the transducer the sample stream passes through a Teflon-coated glass fiber filter. This filter is weighed every two seconds. The difference between the current filter weight and the initial or installed weight gives the total mass of the collected particulate. The mass concentration is computed by dividing the total mass by the flow rate. Data is transmitted by telemetry for entry into the automated central data acquisition system.

(b) **Particulate Matter 2.5 microns in size (PM<sub>2.5</sub>)**

With the exception of continuous samplers all PM<sub>2.5</sub> samplers operated by the Division for Air Quality are certified as either FRM or FEM samplers. All manual samplers are operated per the requirements set forth in 40 CFR 50, Appendix L. Samples are collected on 46.2mm PTFE filters over a 24-hour sampling period. Air flow through the filter is to be maintained at 16.7 liters per minute. The flow rate must not vary more than +/-5% for five minutes over a 24-hour sample period at actual ambient temperature and pressure. Samples must be retrieved within 177 hours of the end of the sample run and must be kept cool (4 degrees C or cooler) during transit to meet the thirty-day limit for re-weighing.

The PTFE filters are to be equilibrated before each weighing for a minimum of 24 hours at a controlled atmosphere of 20-23 degrees C mean temperature and 30-40% mean relative humidity. Filters must be used within thirty days of initial weighing. Filters must be re-weighed within thirty days of the end of the sample run and must be kept at 4 degrees C or cooler. The gain in weight in relation to the volume of air sampled is calculated in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

Continuous PM<sub>2.5</sub> samplers provide 24-hour samples daily for AQI reporting. During sampling, ambient air passes through an inlet and sharp cut cyclone designed to pass only particles smaller than 2.5 microns in diameter. After exiting the inlet, the sample stream is sent to a mass transducer. Inside the transducer the sample stream passes through a Teflon-coated glass fiber filter. This filter is weighed every two seconds. The difference between the current filter weight and the initial or installed weight gives the total mass of the collected particulate. The mass concentration is computed by dividing the total mass by the flow rate. Data is transmitted by telemetry for entry into the automated central data acquisition system.

(c) **PM<sub>2.5</sub> Speciation sampling and analysis**

In addition to operating PM<sub>2.5</sub> samplers that determine only PM<sub>2.5</sub> mass values, KYDAQ also operates PM<sub>2.5</sub> speciation samplers that collect samples that are analyzed to determine the chemical makeup of PM<sub>2.5</sub>. Samples are collected on a set of three filters over a 24-hour sampling period. The individual filters are composed of different media in order to collect specific types of toxic pollutants.

After collection, the samples are shipped in ice chests to an EPA contract laboratory for analysis. At the laboratory the samples are analyzed using optical and electron microscopy, thermal optical analysis, ion chromatography and x-ray fluorescence to determine the presence and level of specific toxic compounds. Sample results are entered in the AQS data system.

(d) **Sulfur Dioxide**

Instruments used to continuously monitor sulfur dioxide levels in the atmosphere employ the UV fluorescence and UV open path methods. The continuous data output

from the instrument is transmitted by telemetry for entry into an automated central data system.

Calibration of these instruments is done dynamically using certified gas mixtures containing a known concentration of sulfur dioxide gas. This gas is then diluted in a specially designed apparatus to give varying known concentrations of sulfur dioxide. These known concentrations are supplied to the instruments, which are adjusted so that instrument output corresponds with the specific concentrations. Calibration curves are prepared for each instrument and each data point is automatically compared to this curve before entry into the data acquisition system.

(e) **Carbon Monoxide**

Continuous monitoring for carbon monoxide is performed by use of the non-dispersive infrared correlation method. Data is transmitted by telemetry for entry in an automated central data acquisition system.

Calibration of the instrument is performed periodically by using nitrogen or zero air to establish the zero baseline and NIST or NIST traceable gas mixtures of carbon monoxide in air. The span is checked daily using a certified mixture of compressed gas containing approximately 45 parts per million carbon monoxide.

(f) **Ozone**

Ozone is monitored using the UV photometry and UV open path methods. The continuous data output from the instrument is transmitted by telemetry for entry into an automated central data acquisition system.

Monitors are calibrated routinely using an ozone generator, which is calibrated using the ultra violet photometry reference

method. Calibration curves are prepared for each instrument and each data point is automatically compared to this curve before entry into the data acquisition system.

(g) **Nitrogen Dioxide**

The chemiluminescence and UV open path methods are used in monitoring the nitrogen dioxide level in the ambient air. The continuous data output from the instrument is transmitted by telemetry for entry into an automated central data acquisition system.

Calibration of these instruments is done dynamically using NIST certified gas mixtures of nitric oxide. Through the use of dilution apparatus, varying concentrations are produced and supplied to the monitors, thus producing a specific calibration curve for each instrument. Each data point is automatically compared to this curve before entry into the data acquisition system.

(h) **Lead**

Lead concentrations are determined from the analysis of suspended particulates collected by high volume particulate samplers. Particulate samples are ashed to remove organic matter and acid extracted to dissolve the metals. The lead content is determined by the atomic absorption spectroscopy method.

(i) **Mercury**

Cold vapor atomic fluorescence spectrometry is used to determine elemental gaseous mercury in ambient air at sub-ng/m<sup>3</sup> levels. The analyzer uses a dual, ultra pure gold absorbent, cartridge design that allows alternating desorption and sampling. The dual cartridge designs results in continuous mercury sampling of the air stream. The continuous data

output from the instrument is transmitted by telemetry for entry into an automated central data acquisition system.

(j) **Air Toxics**

Air toxics pollutants are determined in three categories: metals, volatile organic compounds (VOC) and carbonyls.

Metal samples are collected on 46.2 mm PTFE filter over a 24-hour period similar to the PM10 monitoring method. The filter is weighed before and after the sample run. The gain in weight in relation to the volume of air sampled is used to calculate the concentration in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). The PTFE filter is to be equilibrated before each weighing for a minimum of 24 hours at a 20-23 degrees C mean temperature and a 30-40 % mean relative humidity. The filter is then delivered to the Division for Environmental Services for inductively coupled plasma/mass spectrometer analysis to determine the concentration of metals in  $\mu\text{g}/\text{m}^3$ .

VOC samples are collected in a vacuum canister. Ambient air is pulled into the canister over a 24-hour sampling period. The sample is shipped to the Division for Environmental Services for gas chromatography/mass spectrometer analysis. VOC concentrations determined in the sample are reported in  $\mu\text{g}/\text{m}^3$ .

Carbonyl samples are collected on a DPNH cartridge. An ambient air stream flows through the cartridge at a 1 liter per minute flow rate for a 24-hour sampling period. The cartridge is packed on ice and shipped to the Division for Environmental Services for high-pressure liquid chromatography analysis. Carbonyl concentrations determined in the sample are reported in  $\mu\text{g}/\text{m}^3$ .

(k) **Wet Deposition**

Acid precipitation monitoring stations operate on a weekly sampling schedule. Cumulative precipitation events occurring during a seven-day period are collected in one container to represent a one-week sample. An Aerochem precipitation sampler and NCON samplers are used to collect the sample. The principle of operation of the samplers is based on the use of a moisture sensor that activates an electrically driven movable container lid covering the "wet" container during dry periods and then is moved to un-cover the "wet" container when precipitation occurs. The opening and closing of the lid for each precipitation event is indicated on a data logger providing the time and date of each event. At the end of each weekly sampling period, the sample bag/bottle in the "wet" container is removed and a new sample bag/bottle is installed. The sample is then analyzed at the Division for Environmental Services' laboratory.

**7. Quality Assurance Status**

The Division for Air Quality has an extensive quality assurance program to ensure that all air monitoring data collected is accurate and precise. Staff members audit air monitors on a scheduled basis, including those operated by the Louisville Metro Air Pollution Control District, to ensure that each instrument is calibrated and operating properly. Data validation is performed monthly by verifying the data reported by each instrument is recorded accurately in the computerized database.

**8. Area Representativeness**

Each station in the monitoring network must be described in terms of the physical dimensions of the air parcel nearest the monitoring station throughout which actual pollutant concentrations are

reasonably similar. Area dimensions or scales of representativeness used in the network description are:

- (a) Microscale - defines the concentration in air volumes associated with area dimensions ranging from several meters up to about 100 meters.
- (b) Middle scale - defines the concentration typical of areas up to several city blocks in size with dimensions ranging from about 100 meters to 0.5 kilometers.
- (c) Neighborhood scale - defines concentrations within an extended area of a city that has relatively uniform land use with dimensions in the 0.5 to 4.0 kilometers.
- (d) Urban scale - defines an overall citywide condition with dimensions on the order of 4 to 50 kilometers.
- (e) Regional Scale - defines air quality levels over areas having dimensions of 50 to hundreds of kilometers.

Closely associated with the area around the monitoring station where pollutant concentrations are reasonably similar are the basic monitoring exposures of the station. There are four basic exposures included in this description:

- (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 impact on ambient pollution levels of significant sources or source categories.

- (d) To determine general background concentration levels.

The design intent in siting stations is to correctly match the area dimensions represented by the sample of monitored air with the area dimensions most appropriate for the monitoring objective of the station. The following relationship of the four basic objectives and the area of representativeness are appropriate when siting monitoring stations:

<u>Monitoring Exposures</u>	<u>Siting Area Scale</u>
Highest concentration	Micro, Middle, Neighborhood
Population	Neighborhood, Urban
Source impact	Micro, Middle, Neighborhood
General/background	Neighborhood, Regional

### **Data Processing and Reporting**

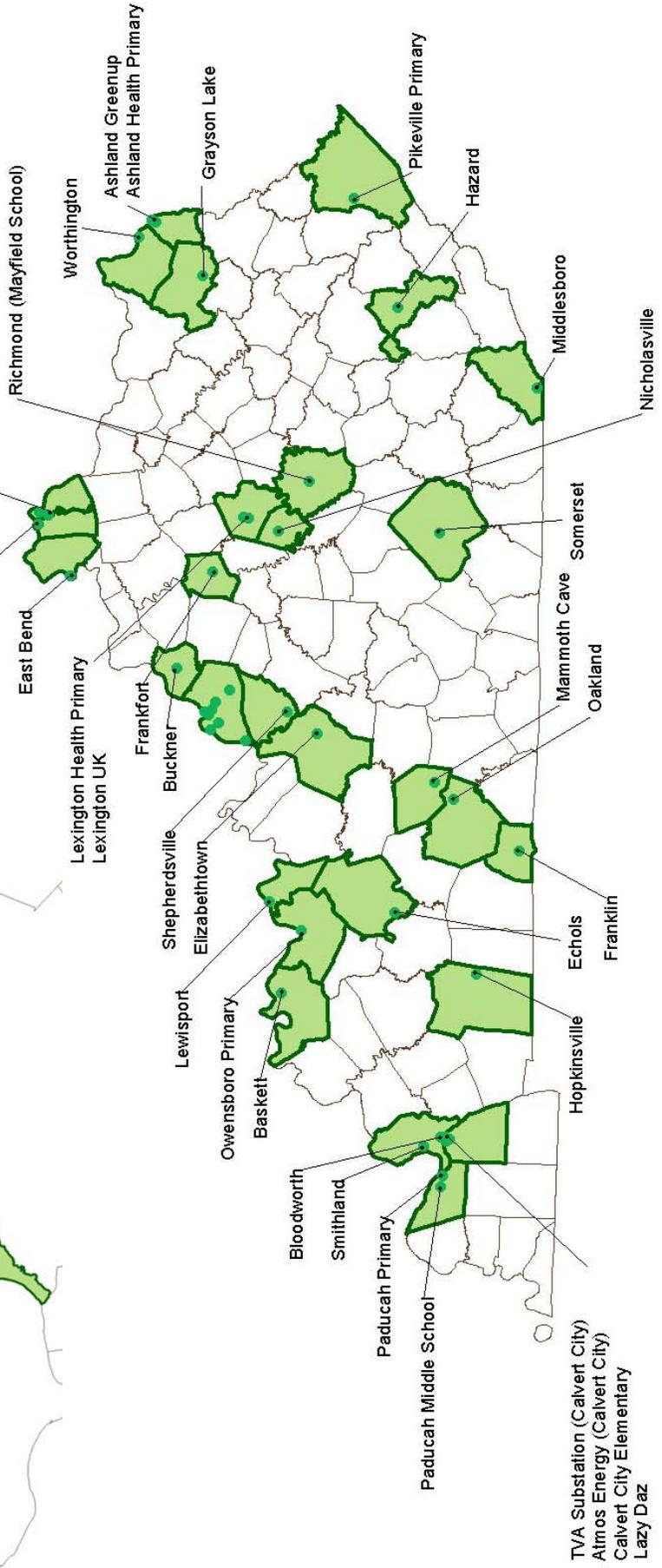
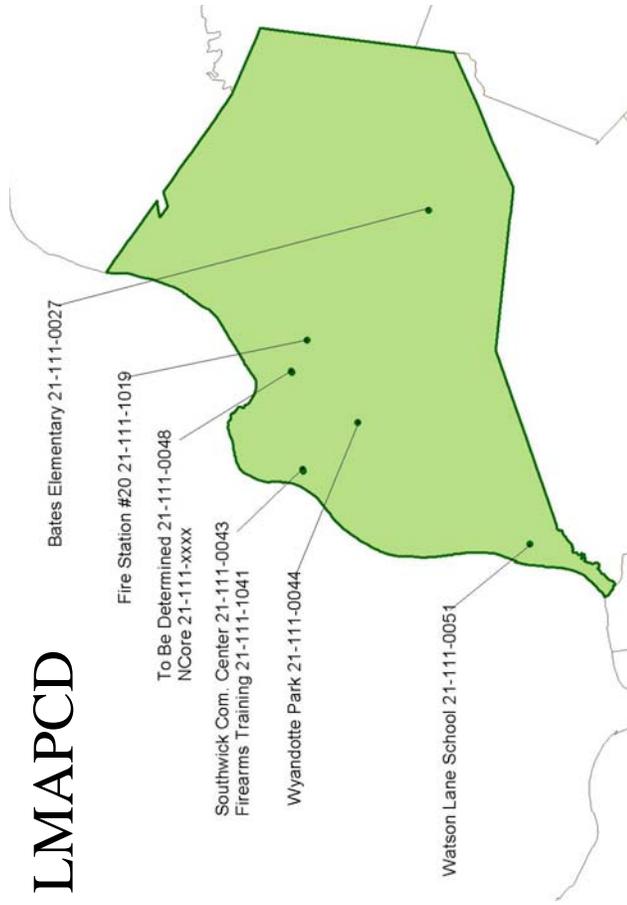
All ambient air quality data are stored in a centralized server located at the 14<sup>th</sup> floor of the Capital Plaza Tower, the Environmental and Public Protection (EPPC) headquarters in Frankfort, Kentucky. The server is backed up on tape nightly, weekly and monthly. The backup tape of the server is stored off site of the EPPC headquarters and is cycled through use on a monthly schedule. After each month of data has passed all quality assurance checks, the data is transmitted via telemetry to the U.S. EPA's national data storage system known as AQS. Statistical data summaries are generated from this database and compiled to produce the Ambient Air Quality Annual Report. This report may be accessed at the KYDAQ website: <http://www.air.ky.gov>. The report is located under Public Information.



LMAPCD

KYDAQ

# Ambient Air Monitoring Network



TVA Substation (Calvert City)  
Atmos Energy (Calvert City)  
Calvert City Elementary  
Lazy Daz

**AIR MONITORING STATIONS SUMMARY**

Metropolitan Statistical Area	Number of Sites	PM <sub>2.5</sub>	PM <sub>10</sub>	PM <sub>coarse</sub>	SO <sub>2</sub>	NO <sub>2</sub>	NO <sub>y</sub>	CO	O <sub>3</sub>	Metals	Hg	Wet Dep	VO <sub>C</sub>	Carbonyl	Specification	MET
Bowling Green, KY	2	4 <sup>T</sup>	0	0	1	1	0	1	2	0	1	0	0	0	0	1
Cincinnati-Middletown, OH-KY-IN	3	4 <sup>T</sup>	0	0	1	1	0	0	3	0	1	1	1	1	1	2
Clarksville, TN-KY	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Elizabethtown, KY	1	2 <sup>T</sup>	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Evansville, IN-KY	1	3 <sup>T</sup>	0	0	1	0	0	0	1	0	0	0	0	0	0	0
Huntington-Ashland, WV-KY-OH	3	2 <sup>T</sup>	2 <sup>*</sup>	0	2	1	0	0	2	2 <sup>C</sup>	0	0	1	1	1	1
Lexington-Fayette, KY	3	3 <sup>T</sup>	1 <sup>*</sup>	0	2	1	0	0	2	1	1	1	1	1	1	1
Louisville-Jefferson County, KY-IN	10	12 <sup>T</sup>	4 <sup>*</sup>	1	3	1	1	2	5	0	0	0	0	0	1	3
Owensboro, KY	2	2 <sup>T</sup>	0	0	1	1	0	0	2	0	0	0	0	0	0	1
Micropolitan Statistical Area																
Paducah, KY-IL	4	2 <sup>T</sup>	1	0	2	1	0	0	2	0	1	1	1	0	0	1
Somerset, KY	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Middlesborough, KY	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Richmond-Berea, KY	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Frankfort, KY	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Not in a MSA																
Carter County	1	1	2 <sup>C</sup>	0	0	0	0	0	1	2 <sup>C</sup>	1	2	2	2	1	1
Marshall County	4	0	1	0	0	0	0	0	0	1	0	0	5	0	0	1
Ohio County	1	2 <sup>T</sup>	1 <sup>*</sup>	0	0	0	0	0	0	1	1	1	0	0	0	1
Perry County	1	1 <sup>T</sup>	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Pike County	1	3 <sup>T</sup>	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Simpson County	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
<b>TOTALS</b>	<b>43</b>	<b>45</b>	<b>12</b>	<b>1</b>	<b>13</b>	<b>7</b>	<b>1</b>	<b>3</b>	<b>27</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>11</b>	<b>5</b>	<b>5</b>	<b>16</b>

<sup>C</sup>=Collocated monitors; <sup>D</sup>=Duplicate monitors; <sup>T</sup>=TEOM2.5 continuous PM2.5 monitors or TEOM10 continuous PM10 monitors; <sup>\*</sup>=Multiple analysis; <sup>PM10</sup>Teflon filters used for PM10 monitoring; <sup>Metals</sup> monitoring and <sup>PMcoarse</sup>

## SUMMARY OF NETWORK CHANGES 2008

### MSA Summary:

**Clarksville, TN-KY MSA – Hopkinsville (21-047-0006)** add ozone sampler. Discontinue ozone and MET operated by TVA. Tennessee Division of Air Pollution Control agreed to operate the required continuous PM<sub>2.5</sub> sampler for the MSA.

**Lexington-Fayette, KY MSA – Lexington Primary (21-067-0012)** add EPA RadNet fixed station. **UK (21-067-0014)** discontinue VOC sampler.

**Louisville-Jefferson, KY-IN MSA – NCore Site (21-111-####)** establish a site and add carbon monoxide, nitrogen oxide, ozone, sulfur dioxide, PM<sub>2.5</sub>, PM<sub>2.5</sub> TEOM, PM<sub>coarse</sub>, PM<sub>2.5</sub> speciation, total reactive nitrogen and meteorological samplers. **Southwick (21-111-0043)** move PM<sub>2.5</sub> speciation sampler to new NCore site. **Senaca (21-111-0046)** discontinue carbon monoxide sampler and discontinue site. **Barret (21-111-0048)** move PM<sub>2.5</sub>, PM<sub>2.5</sub> TEOM, pyranometer and rain/melt precipitation samplers to a new site and discontinue site. **WLKY-TV (21-111-1021)** move ozone and nitrogen oxide samplers to new NCore site and discontinue site. **New Site -** (Location to be determined) add PM<sub>2.5</sub>, PM<sub>2.5</sub> TEOM, pyranometer and rain/melt precipitation samplers.

### Not in a MSA Summary:

**Calvert City, KY – Lazy Daz (21-157-0019)** establish site and add VOC sampler.

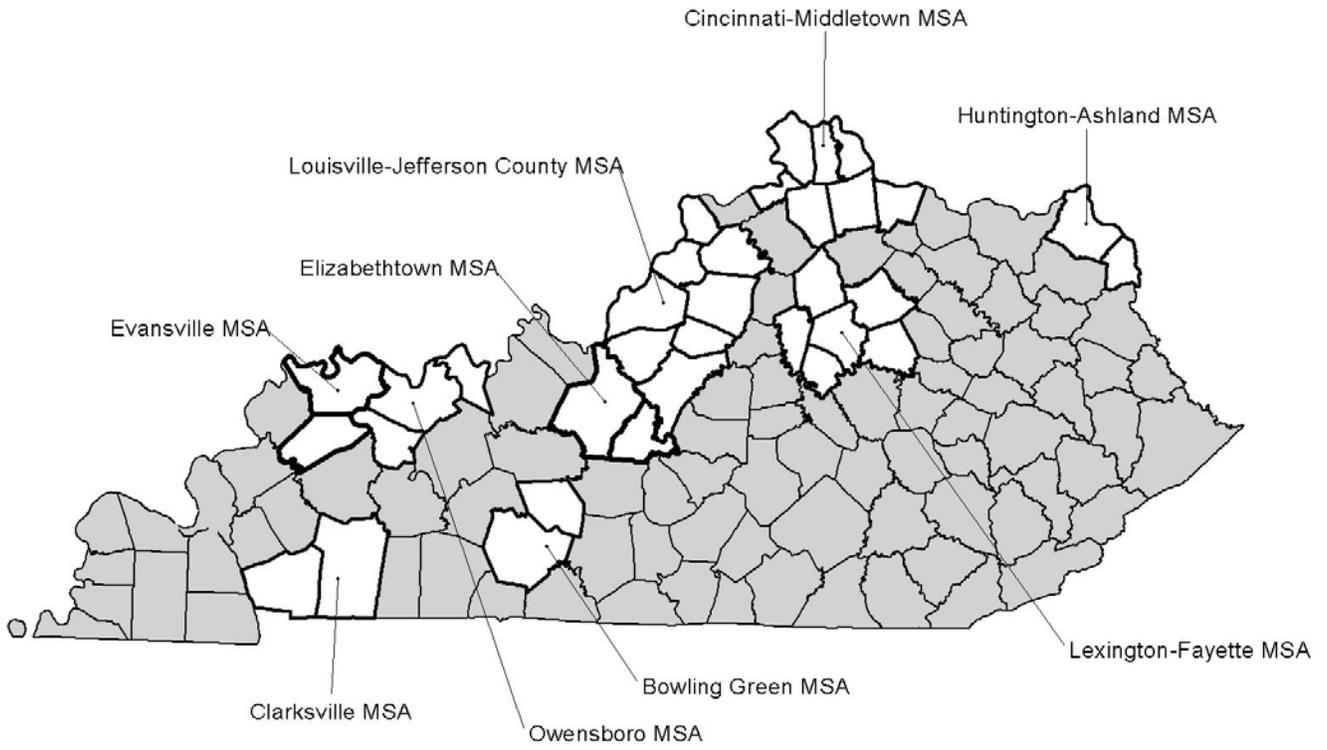
**Grayson, KY – Grayson Lake (21-043-0500)** add PM<sub>10</sub>, metals, VOC, carbonyls, chrome6+, semi-volatile organic compounds, polycyclic aromatic hydrocarbons, solar radiation, and PM<sub>2.5</sub> speciation samplers. The added samplers are moved from the Hazard, KY site.

**Hazard, KY – Hazard (21-193-0003)** discontinue PM<sub>2.5</sub>, PM<sub>10</sub>, metals, VOC, carbonyls, chrome6+, semi-volatile organic compounds, polycyclic aromatic hydrocarbons, solar radiation, and PM<sub>2.5</sub> speciation samplers. The discontinued samplers from Hazard are being moved to Grayson, KY site.

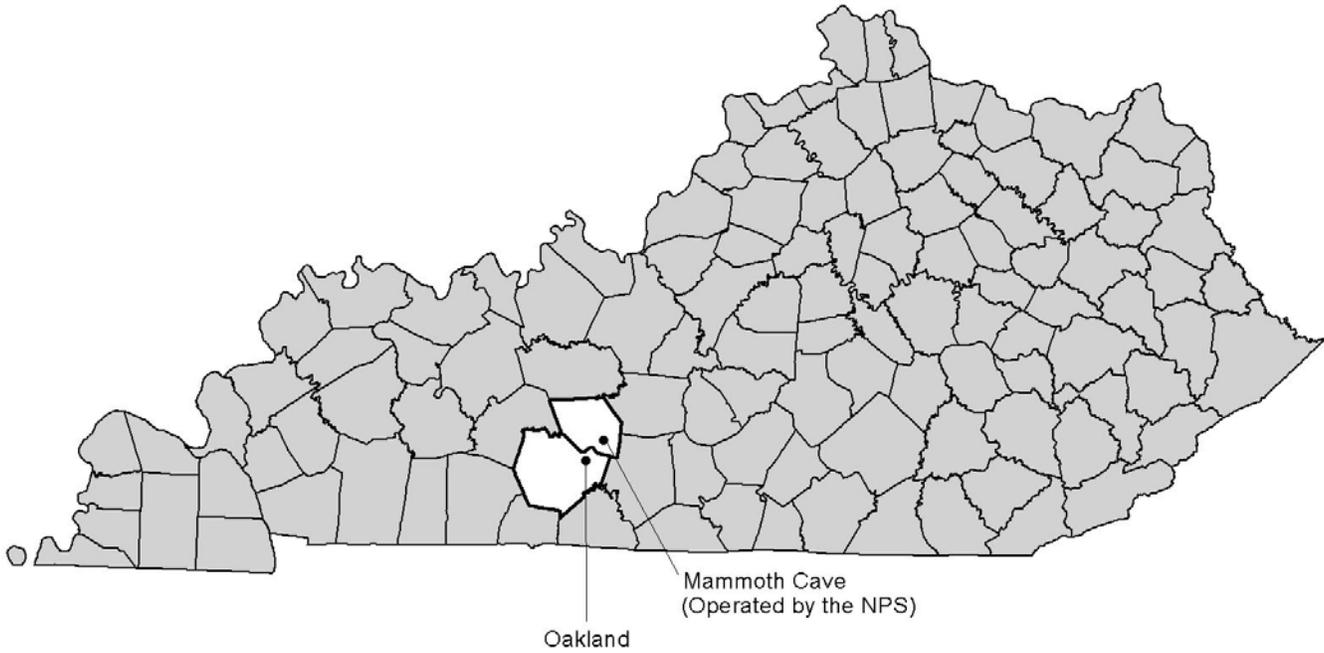
**Pikeville, KY – Pikeville (21-195-0002)** reduce sampling frequency for the primary PM<sub>2.5</sub> from every third day to every sixth day. Reduce sampling frequency for the duplicate PM<sub>2.5</sub> from every sixth day to every twelfth day.

**Echols, KY – Echols (21-183-0032)** discontinue Ultra Violet open path analysis of ozone, sulfur dioxide, nitrogen dioxide, nitric oxide, and ammonia.

# Metropolitan Statistical Areas



# Bowling Green, KY



AIRS ID	ADDRESS	PM2.5	PM10	SO2	NO2	CO	O3	Metals	Hg	Wet Dep.	VOC	Carb-onyl	Specia-tion	MET
21-061-0501 (NPS)	Alfred Cook Road Mammoth Cave (Edmonson)	X(t)		X	X	X	X		X	X				X
21-227-0008	Oakland School Oakland (Warren)	X(ct)					X(sl)							
TOTAL		4	0	1	1	1	2	0	1	1	0	0	0	1

- (c) Collocated Monitor
- (I) Air Quality Index Monitor
- (s) Special Purpose Monitor
- (t) Continuous PM Monitor

(Rev.5/23/08)

**401 KAR 50:020 Air Quality Control Region:** South Central Kentucky Intrastate (105)  
**CSA/MSA:** Bowling Green, KY MSA  
**Site Name:** Oakland Primary  
**AQS Site ID:** 21-227-0008  
**Location:** Oakland Elementary School, Oakland, KY 42159  
**County:** Warren  
**GPS Coordinates:** 37.036667, -86.250556  
**Date Established:** January 1, 2000  
**Inspection Date:** November 16, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the Oakland Elementary School in Oakland, Kentucky. The sample inlets are 13 feet above ground level and 200 feet from the nearest road. The most recent site inspection was conducted on November 16, 2007. Upon inspection, the sample inlets and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D, E and G.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards and to provide levels of ozone and particulate matter for daily index reporting.

**Monitors:**

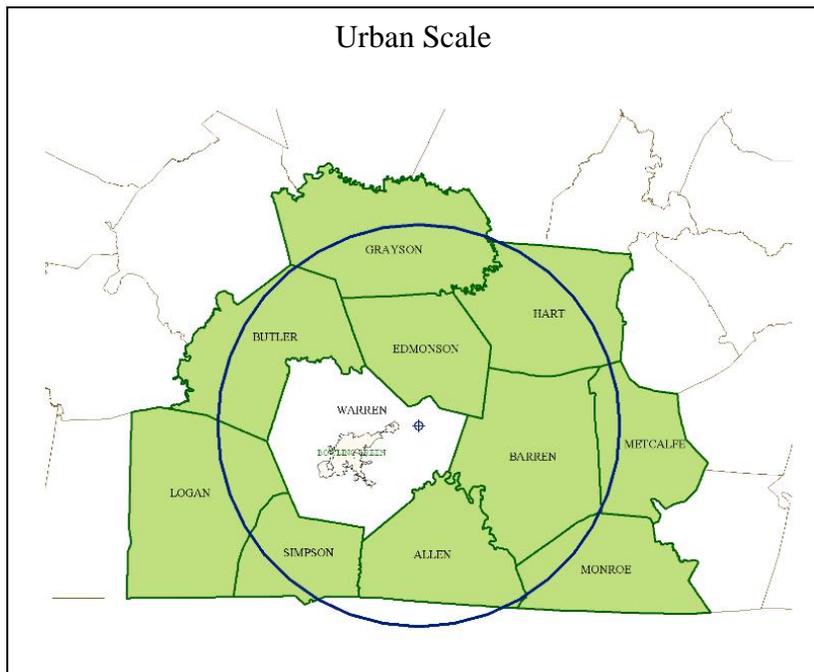
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SPM AQI	UV photometry	Continuously March 1 – October 31
PM <sub>2.5</sub> TEOM	SPM AQI	Tapered element oscillating microbalance, gravimetric	Continuously
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every third day
- Collocated FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every sixth day

**Quality Assurance Status:**

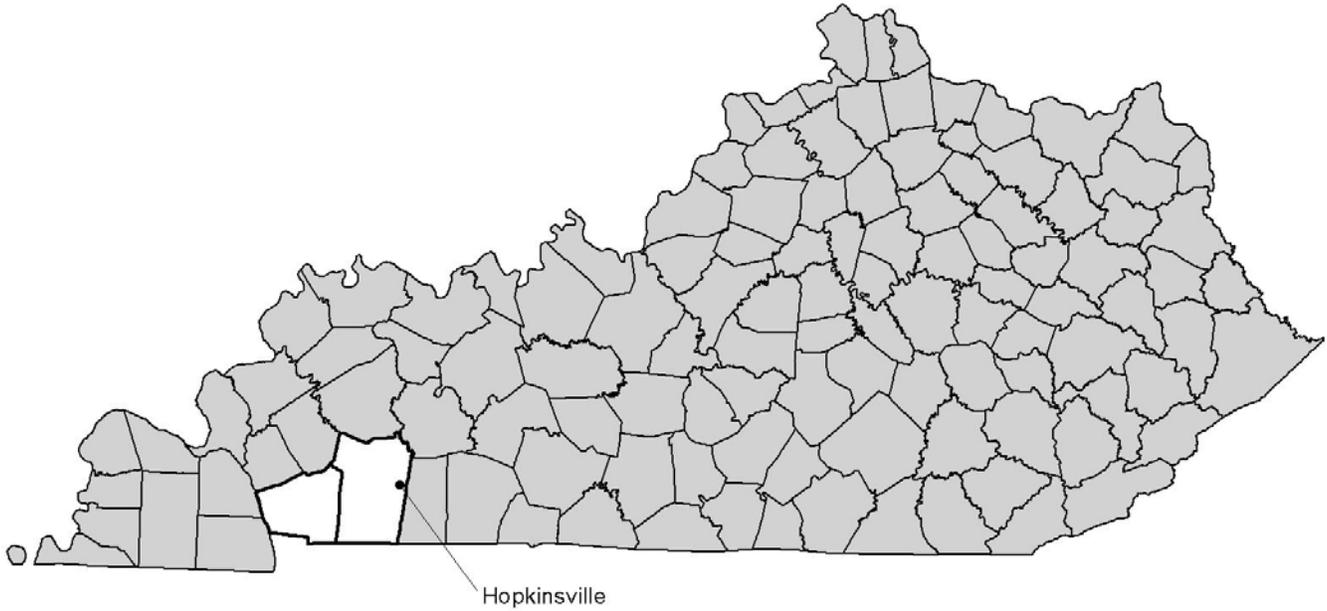
All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on an urban scale for particulates. This site also represents maximum concentration on an urban scale for ozone.



# Clarksville, TN-KY



<u>AIRS ID</u>	<u>ADDRESS</u>	<u>PM2.5</u>	<u>PM10</u>	<u>SO2</u>	<u>NO2</u>	<u>CO</u>	<u>O3</u>	<u>Metals</u>	<u>Hg</u>	<u>Wet Dep.</u>	<u>VOC</u>	<u>Carb- onyl</u>	<u>Specia- tion</u>	<u>MET</u>
21-047-0006	10800 Pilot Rock Road Hopkinsville (Christian)	X					X							
<b>TOTAL</b>		1	0	0	0	0	1	0	0	0	0	0	0	0

(Rev.5/23/08)

**401 KAR 50:020 Air Quality Control Region:** Paducah – Cairo Interstate (072)

**CSA/MSA:** Clarksville, TN-KY MSA

**Site Name:** Hopkinsville

**AQS Site ID:** 21-047-0006

**Location:** 10800 Pilot Rock Road, Hopkinsville, KY 42240

**County:** Christian

**GPS Coordinates:** 36.911667, -87.323611

**Date Established:** January 1, 1999

**Inspection Date:** November 16, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is on a platform in a field adjacent to a residence located at 10800 Pilot Rock Road in Hopkinsville, Kentucky. The sample inlet is 10 feet above ground level and 300 feet from the nearest road. The most recent site inspection was conducted on November 16, 2007. Upon inspection, the sample inlet and monitor were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality standards and to determine levels of interstate transport of fine particulate matter.

**Monitors:**

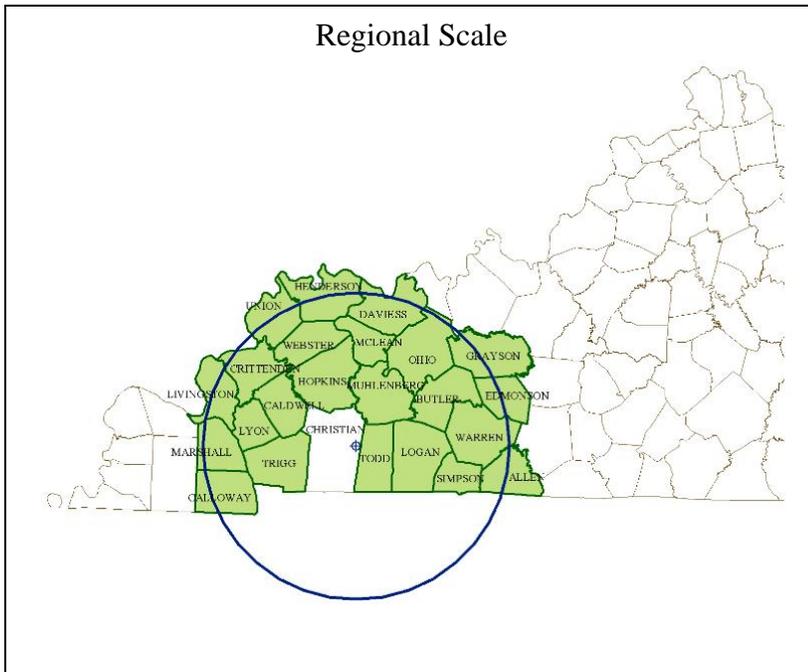
Monitor Type	Designation	Analysis Method	Frequency of Sampling
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every third day
AEM Ozone	SLAMS	UV photometry	Continuously March 1 – October 31

**Quality Assurance Status:**

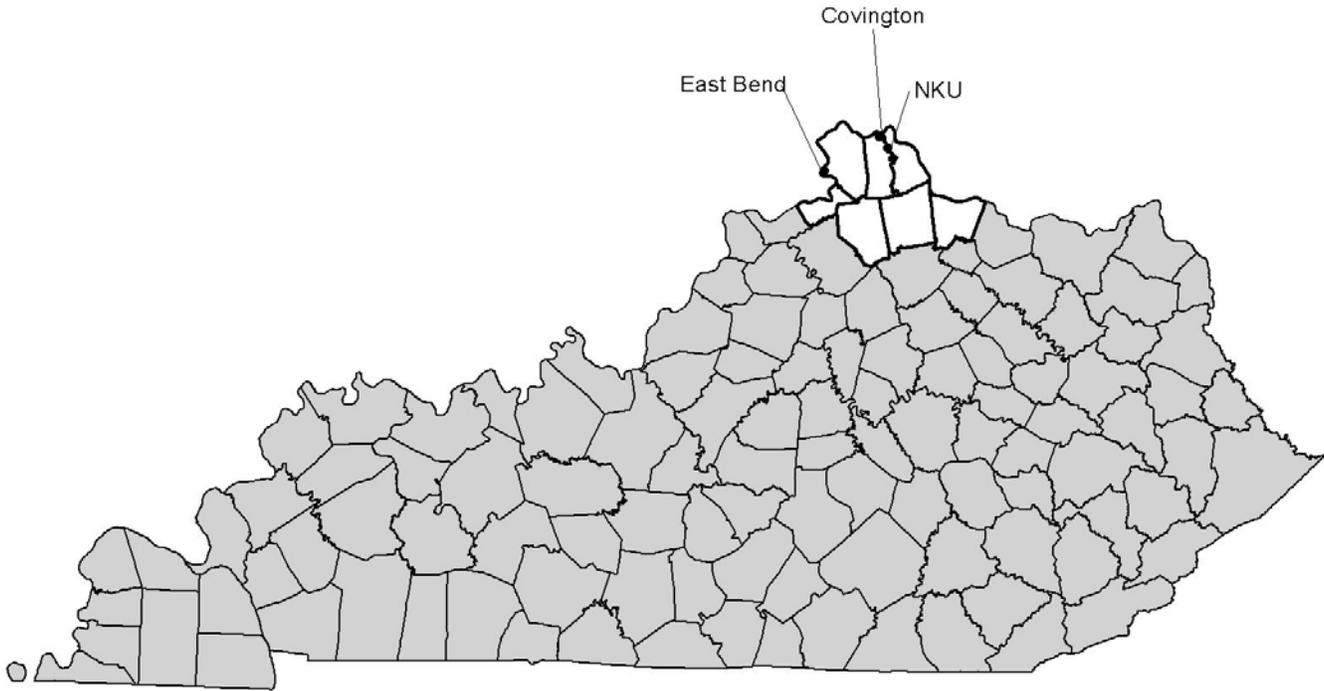
All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on a regional scale.



# Cincinnati-Middletown, OH-KY-IN



AIRS ID	ADDRESS	PM2.5	PM10	SO2	NO2	CO	O3	Metals	Hg	Wet Dep.	VOC	Carbonyl	Speciation	MET
21-015-0003	KY 338 & Lower River Road East Bend (Boone)			X(s)			X							X
21-037-3002	524A John's Hill Road Highland Heights(Campbell)	X(I)		X(I)	X		X(Ie)		X	HG				
21-117-0007	1401 Dixie Highway Covington (Kenton)	X(Ie)		X(I)	X		X(I)				X	X	X	X
<b>TOTAL</b>		<b>4</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>

- (e) Emergency Episode Monitor
- (I) Air Quality Index Monitor
- (s) Special Purpose
- (t) Continuous PM Monitor

(Rev.5/23/08)

**401 KAR 50:020 Air Quality Control Region:** Metropolitan Cincinnati (Ohio) Interstate (079)  
**CSA/MSA:** Cincinnati-Middletown-Wilmington, OH-KY-IN CSA / Cincinnati-Middletown, OH-KY-IN MSA  
**Site Name:** East Bend  
**AQS Site ID:** 21-015-0003  
**Location:** KY 338 and Lower River Road, East Bend, KY 41005  
**County:** Boone  
**GPS Coordinates:** 38.918056, -84.852778  
**Date Established:** July 1, 1977  
**Inspection Date:** September 28, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.

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The monitoring site is a stationary equipment shelter located at the intersection of KY 338 and Lower River Road in East Bend, Kentucky. The sample inlets are 12 feet above ground level and 50 feet from the nearest road. The most recent site inspection was conducted on September 28, 2007. Upon inspection, the sample lines and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objective is to determine compliance with National Ambient Air Quality Standards.

**Monitors:**

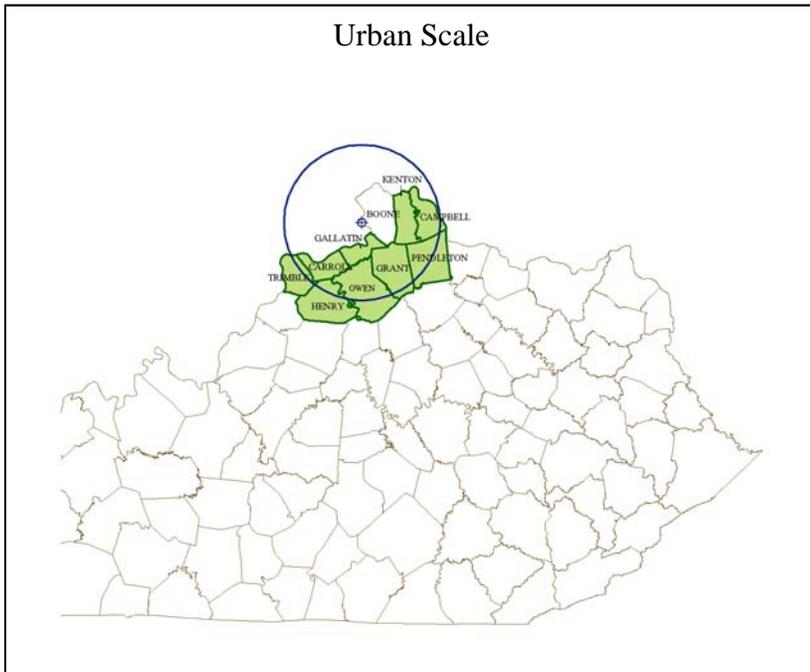
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SLAMS	UV photometry	Continuously March 1 – October 31
Meteorological	Other	AQM grade instruments for wind speed, wind direction, humidity, barometric pressure and temperature	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents background levels on an urban scale for ozone.



**401 KAR 50:020 Air Quality Control Region:** Metropolitan Cincinnati (Ohio) Interstate (079)  
**CSA/MSA:** Cincinnati-Middletown-Wilmington, OH-KY-IN CSA / Cincinnati-Middletown, OH-KY-IN MSA  
**Site Name:** Covington  
**AQS Site ID:** 21-117-0007  
**Location:** University College, 1401 Dixie Hwy, Covington, KY 41011  
**County:** Kenton  
**GPS Coordinates:** 39.072500, -84.525000  
**Date Established:** August 22, 1975  
**Inspection Date:** September 28, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network



The monitoring site is a stationary equipment shelter located on the grounds of the University College in Covington, Kentucky. The sample inlets are 13 feet above ground level and 40 feet from the nearest road. The most recent site inspection was conducted on September 28, 2007. Upon inspection, the sample lines and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D, E and G.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards; to provide ozone, particulate and sulfur dioxide levels for daily index reporting; and to detect elevated pollutant levels for activation of emergency control procedures for particulates.

**Monitors:**

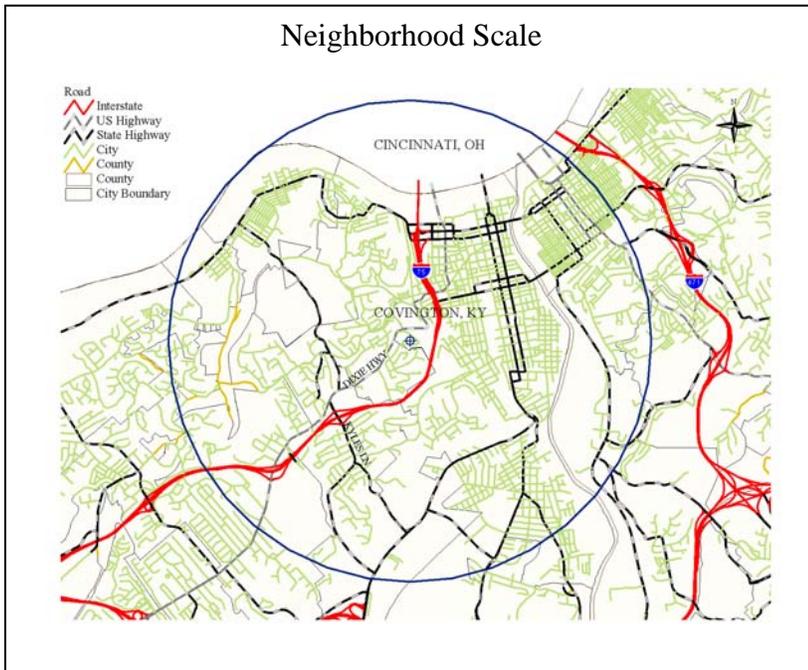
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SLAMS AQI	UV photometry	Continuously March 1 – October 31
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every third day
PM <sub>2.5</sub> Speciation	SLAMS	Thermal optical, ion chromatography, and X-ray fluorescence	24-hours every sixth day
PM <sub>2.5</sub> TEOM	SPM AQI EPISODE	Tapered element oscillating microbalance, gravimetric	Continuously
Volatile Organics Compound	SPM	EPA method TO-15	24-hours every sixth day
Carbonyls	SPM	EPA method TO-11A	24-hours every sixth day
Meteorological	Other	AQM grade instruments for wind speed, wind direction, humidity, barometric pressure and temperature	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on a neighborhood scale for ozone and particulates.



**401 KAR 50:020 Air Quality Control Region:** Metropolitan Cincinnati (Ohio) Interstate (079)  
**CSA/MSA:** Cincinnati-Middletown-Wilmington, OH-KY-IN CSA / Cincinnati-Middletown, OH-KY-IN MSA  
**Site Name:** Northern Kentucky University “NKU”  
**AQS Site ID:** 21-037-3002  
**Location:** 524A John’s Hill Road, Highland Heights, KY 41076  
**County:** Campbell  
**GPS Coordinates:** 39.02181, - 84.47445  
**Date Established:** August 1, 2007  
**Inspection Date:** September 28, 2007  
**Inspection By:** Andrea Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network



The monitoring site is a stationary equipment shelter located on farmland owned by the Northern Kentucky University in Highland Heights, Kentucky. The sample inlets are 13 feet above ground level and 22 meters from the nearest road which is a dirt service drive for a radio tower. The most recent site inspection was conducted on September 28, 2007. Upon inspection, the sample lines and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D, E and G.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards; to provide ozone, particulate and sulfur dioxide levels for daily index reporting; and to detect elevated pollutant levels for activation of emergency control procedures for ozone.

**Monitors:**

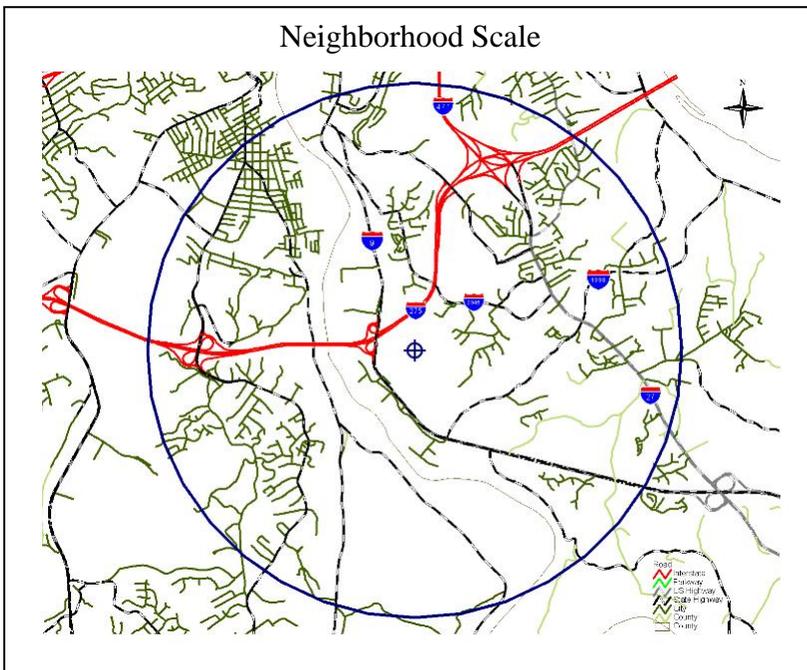
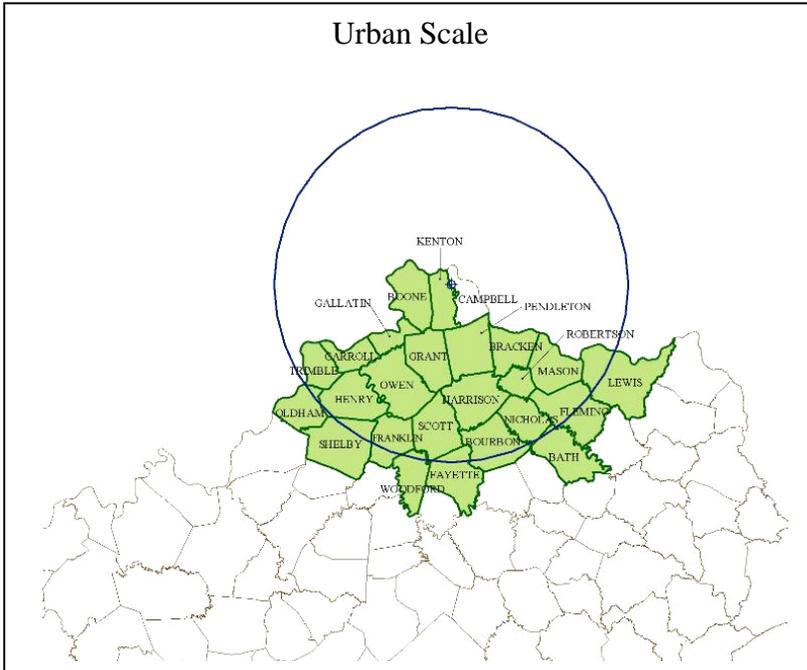
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Nitrogen Dioxide	SLAMS	Chemiluminescence	Continuously
AEM Ozone	SLAMS AQI EPISODE	UV photometry	Continuously March 1 – October 31
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every third day
PM <sub>2.5</sub> TEOM	SPM AQI	Tapered element oscillating microbalance, gravimetric	Continuously
AEM Sulfur Dioxide	SLAMS AQI	UV fluorescence	Continuously
Mercury - ambient	SPM	Cold vapour atomic fluorescence spectrometry	Continuously
Mercury – Wet Deposition	SPM	Wet deposition collected, analysis of sample by the Environmental Services laboratory	Weekly

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure for nitrogen dioxide, ozone, sulfur dioxide and mercury on an urban scale. This site also represents population exposure on a neighborhood scale for particulate matter.



# Elizabethtown, KY



AIRS ID	ADDRESS	PM2.5	PM10	SO2	NO2	CO	O3	Metals	Hg	Wet Dep.	VOC	Carb-onyl	Specia-tion	MET
21-093-0006	801 N Miles St, Am Legion Park Elizabethtown (Hardin)	X(t)							X(s)					
TOTAL		2	0	0	0	0	1	0	0	0	0	0	0	0

- (s) Special Purpose Monitor
- (t) Continuous PM Monitor

(Rev.5/23/08)

**401 KAR 50:020 Air Quality Control Region:** North Central Kentucky Intrastate (104)  
**CSA/MSA:** Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN CSA / Elizabethtown, KY MSA  
**Site Name:** Elizabethtown  
**AQS Site ID:** 21-093-0006  
**Location:** American Legion Park, 801 North Miles Street, Elizabethtown, KY 42701  
**County:** Hardin  
**GPS Coordinates:** 37.706389, -85.851667  
**Date Established:** February 24, 2000  
**Inspection Date:** November 6, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located near the tennis courts on the grounds of the American Legion Park in Elizabethtown, Kentucky. The sample inlets are 13 feet above ground level and 800 feet from the nearest road. The most recent site inspection was conducted on November 6, 2007. Upon inspection, the sample lines and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards.

**Monitors:**

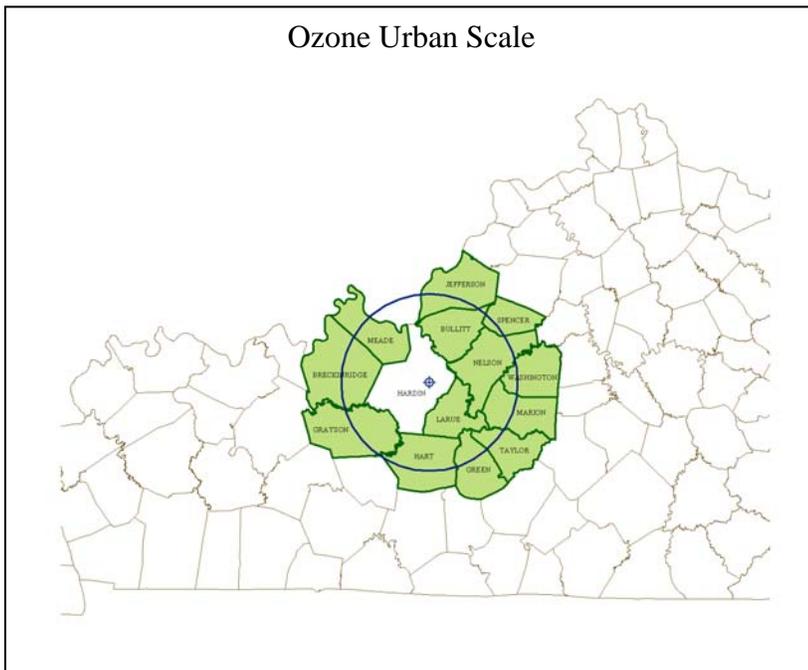
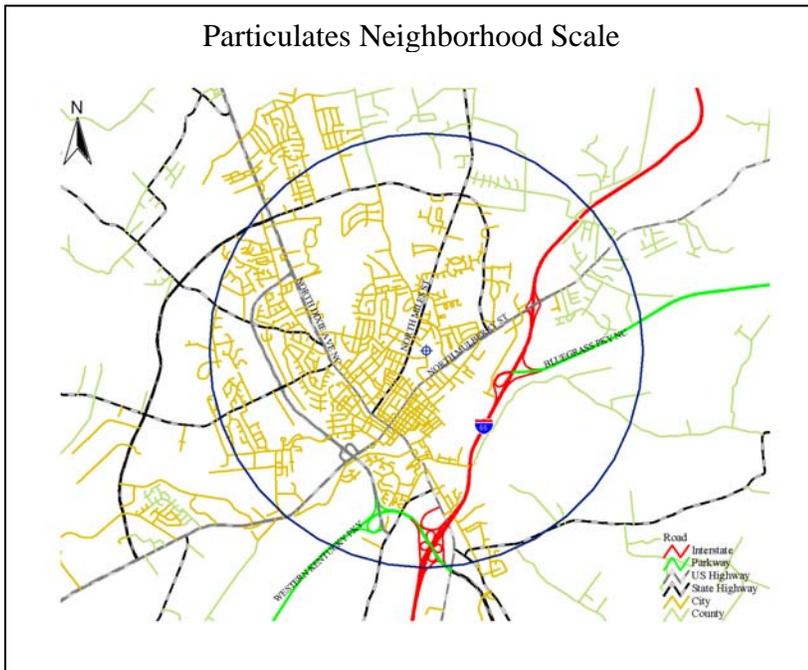
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SPM	UV photometry	Continuously March 1 – October 31
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every third day
PM <sub>2.5</sub> TEOM	SPM	Tapered element oscillating microbalance, gravimetric	Continuously

**Quality Assurance Status:**

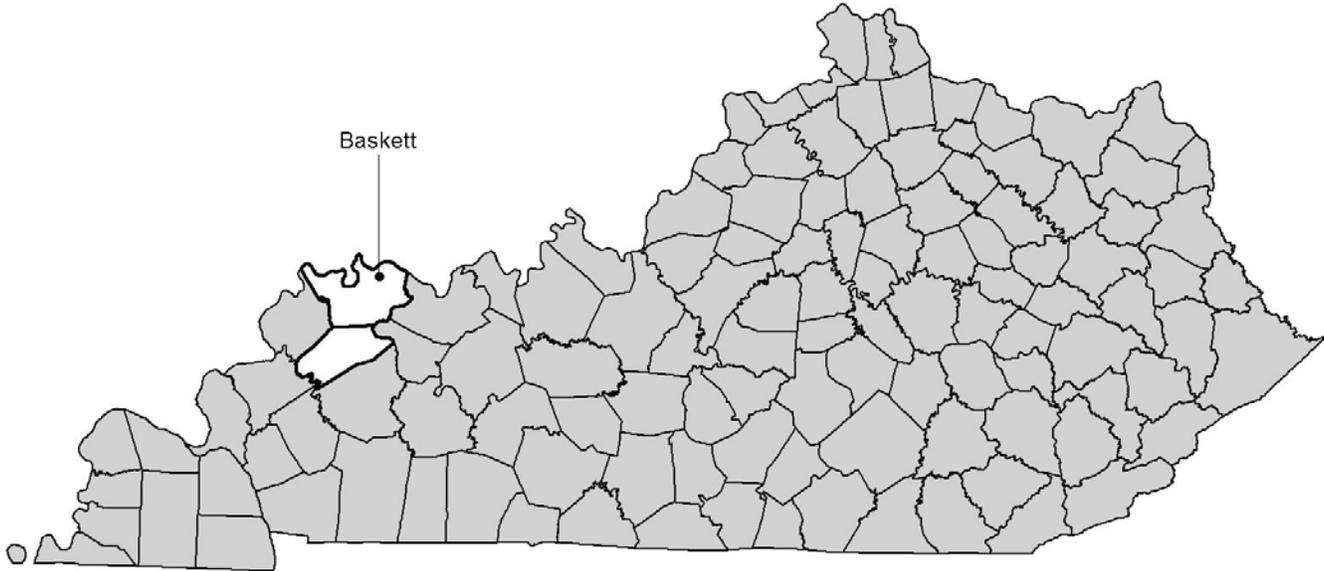
All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on a neighborhood scale for particulates and population exposure on an urban scale for ozone.



# Evansville, IN-KY



AIRS ID	ADDRESS	PM2.5	PM10	SO2	NO2	CO	O3	Metals	Hg	Wet Dep.	VOC	Carb-onyl	Speciation	MET
21-101-0014	Baskett Fire Department Baskett (Henderson)	X(ct)		X			X(s)							
<b>TOTAL</b>		<b>3</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

- (c) Collocated Monitor
- (s) Special Purpose Monitor
- (t) Continuous PM Monitor

(Rev.5/23/08)

**401 KAR 50:020 Air Quality Control Region:** Evansville-Owensboro-Henderson Interstate (077)

**CSA/MSA:** Evansville, IN- KY MSA

**Site Name:** Baskett

**AQS Site ID:** 21-101-0014

**Location:** Baskett Fire Department, Baskett, KY 42402

**County:** Henderson

**GPS Coordinates:** 37.871389, -87.463333

**Date Established:** February 27, 1992

**Inspection Date:** September 18, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the Baskett Fire Department in Baskett, Kentucky. The sample inlets are 13 feet above ground level and 25 feet from the nearest road. The most recent site inspection was conducted on September 18, 2007. Upon inspection, the sample lines and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objective is to determine compliance with National Ambient Air Quality Standards.

**Monitors:**

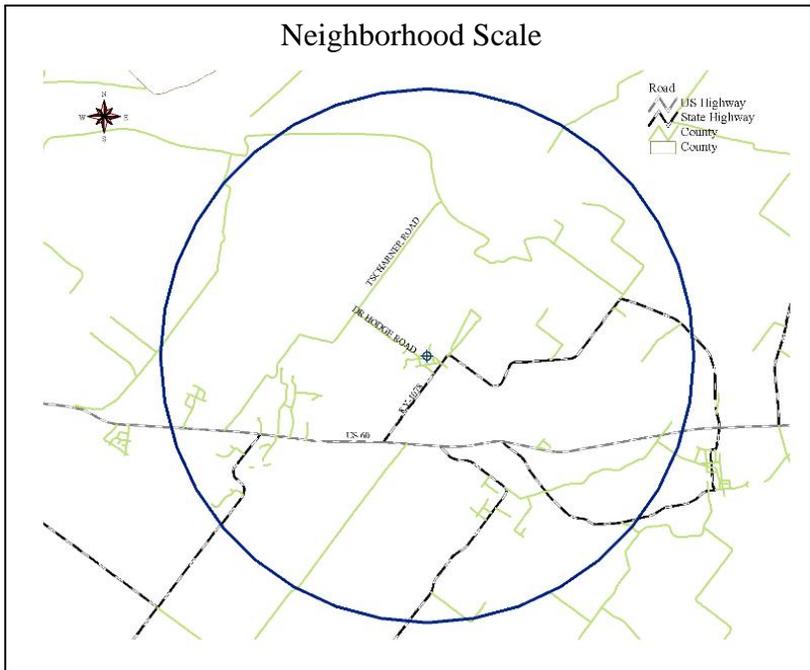
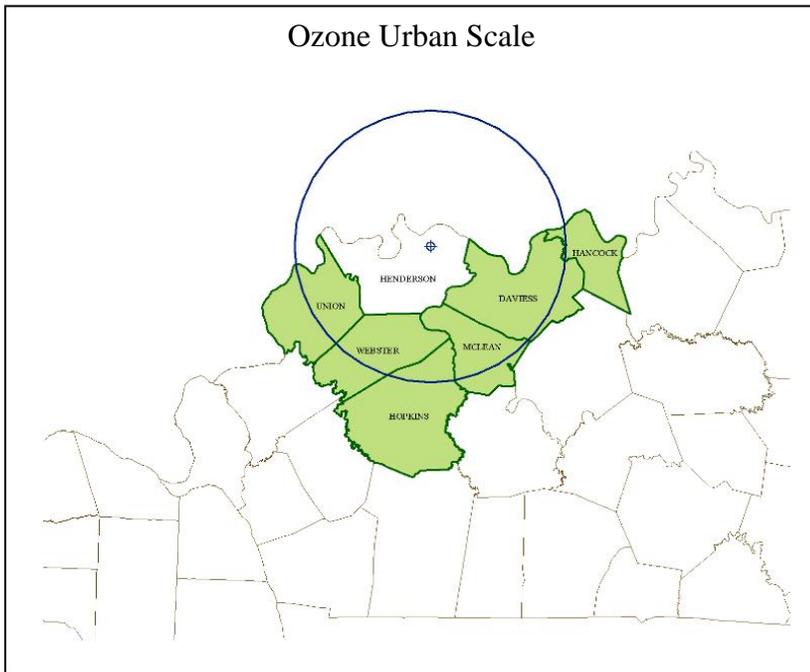
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SPM	UV photometry	Continuously March 1 – October 31
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every third day
- Collocated FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every sixth day
PM <sub>2.5</sub> TEOM	SPM	Tapered element oscillating microbalance, gravimetric	Continuously
AEM Sulfur Dioxide	SLAMS	UV fluorescence	Continuously

**Quality Assurance Status:**

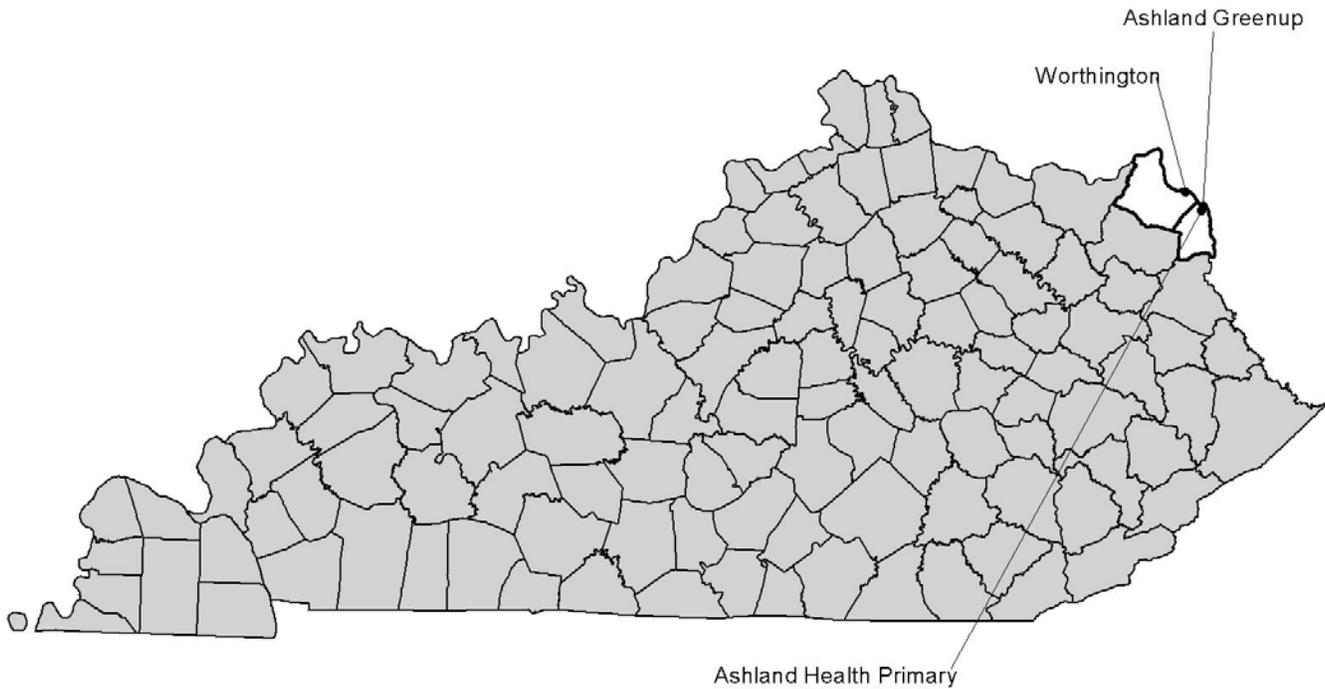
All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents maximum concentration on an urban scale for ozone. This site also represents population exposure on a neighborhood scale for particulates and sulfur dioxide.



# Huntington-Ashland, WV-KY-OH



AIRS ID	ADDRESS	PM2.5	PM10	SO2	NO2	CO	O3	Metals	Hg	Wet Dep.	VOC	Carb-onyl	Speciation	MET
21-019-0002	21st & Greenup Ashland (Boyd)		X(c)					X(c)						
21-019-0017	2924 Holt St, FIVCO Health Dept Ashland (Boyd)		X(I)	X(e)	X(e)		X(e)				X(s)	X(s)	X(s)	X
21-089-0007	Water Tower, Scott & Center Sts. Worthington (Greenup)			X(s)			X							
TOTAL		2	2	2	1	0	2	2	0	0	1	1	1	1

- (c) Collocated Monitor
- (e) Emergency Episode Monitor
- (I) Air Quality Index Monitor
- (s) Special Purpose Monitor
- (t) Continuous PM Monitor

(Rev.5/23/08)

**401 KAR 50:020 Air Quality Control Region:** Huntington (WV)-Ashland (KY)-Portsmouth-Ironton (OH) Interstate (103)

**CSA/MSA:** Huntington-Ashland, WV-KY-OH MSA

**Site Name:** Ashland -Greenup

**AQS Site ID:** 21-019-0002

**Location:** 122 22<sup>nd</sup> Street, Ashland, KY

**County:** Boyd

**GPS Coordinates:** 38.478611, -82.631944

**Date Established:** April 2, 1978

**Inspection Date:** October 29, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is located on the west end, on a one-story building, of a roof in the Ashland Valvoline Oil complex in Ashland, Kentucky. The sample inlets are 19 feet above ground level and 100 feet from the nearest road. The most recent site inspection was conducted on October 29, 2007. Upon inspection, the sample inlets and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards; to observe pollution trends that provide information for national data analysis; and to measure concentrations of a sub-group of air toxics.

**Monitors:**

Monitor Type	Designation	Analysis Method	Frequency of Sampling
FRM PM <sub>10</sub>	NAMS SLAMS	Gravimetric	24-hours every sixth day
- Collocated FRM PM <sub>10</sub>	SPM	Gravimetric	24-hours every sixth day
- Metals PM <sub>10</sub>	SPM	Determined from the PM <sub>10</sub> sample using EPA method IO 3.4	Same as PM <sub>10</sub>

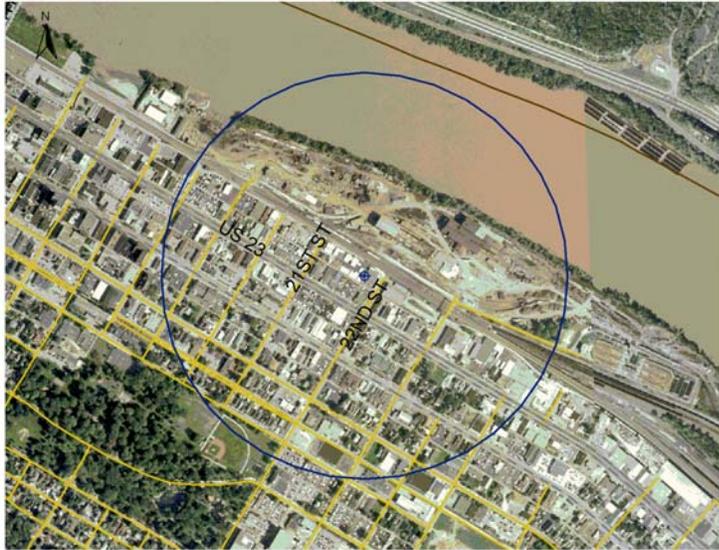
**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

The site represents maximum concentrations on a middle scale for particulates. This site also represents population exposure on a neighborhood scale for air toxics.

Particulate Middle Scale



Air Toxics Neighborhood Scale



**401 KAR 50:020 Air Quality Control Region:** Huntington (WV)-Ashland (KY)-Portsmouth-Ironton (OH) Interstate (103)

**CSA/MSA:** Huntington-Ashland, WV-KY-OH MSA

**Site Name:** Ashland Primary (FIVCO)

**AQS Site ID:** 21-019-0017

**Location:** FIVCO Health Department, 2924 Holt Street, Ashland, KY 41101

**County:** Boyd

**GPS Coordinates:** 38.459167, -82.640556

**Date Established:** January 1, 1999

**Inspection Date:** October 29, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the health department building in Ashland, Kentucky. The sample inlets are 13 feet above ground level and 240 feet from the nearest road. The most recent site inspection was conducted on October 29, 2007. Upon inspection, the sample lines and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D, E and G.

#### **Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards; to detect elevated pollutant levels for activation of emergency control procedures for nitrogen dioxide, ozone and sulfur dioxide; and to provide pollutant levels for daily air quality index reporting.

#### **Monitors:**

<b>Monitor Type</b>	<b>Designation</b>	<b>Analysis Method</b>	<b>Frequency of Sampling</b>
AEM Nitrogen Dioxide	SLAMS EPISODE	Chemiluminescence	Continuously
AEM Ozone	SLAMS AQI EPISODE	UV photometry	Continuously March 1 – October 31
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every third day
PM <sub>2.5</sub> Speciation	SLAMS	Thermal optical, ion chromatography, and X-ray fluorescence	24-hours every sixth day
PM <sub>2.5</sub> TEOM	SPM AQI	Tapered element oscillating microbalance, gravimetric	Continuously
AEM Sulfur Dioxide	SLAMS AQI EPISODE	UV fluorescence	Continuously
Volatile Organics Compound	SPM	EPA method TO-15	24-hours every sixth day

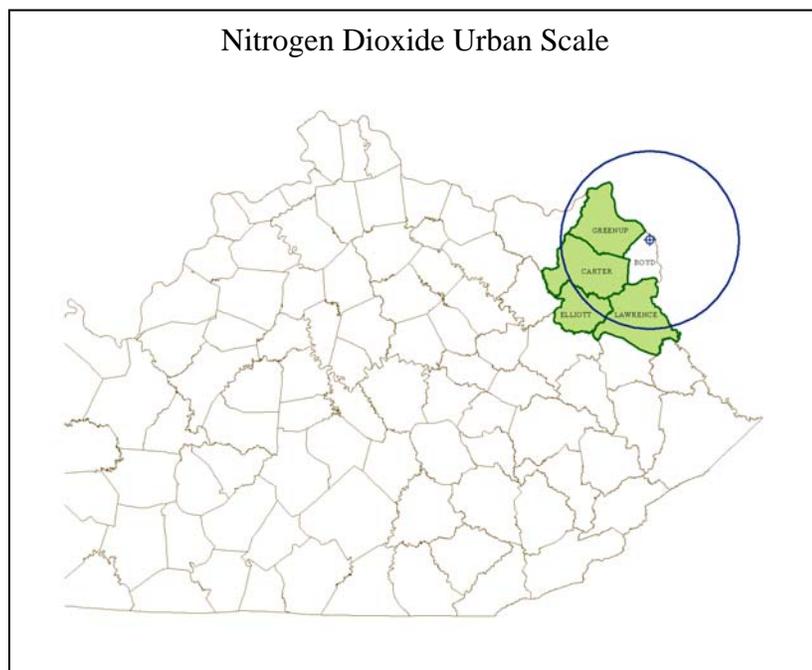
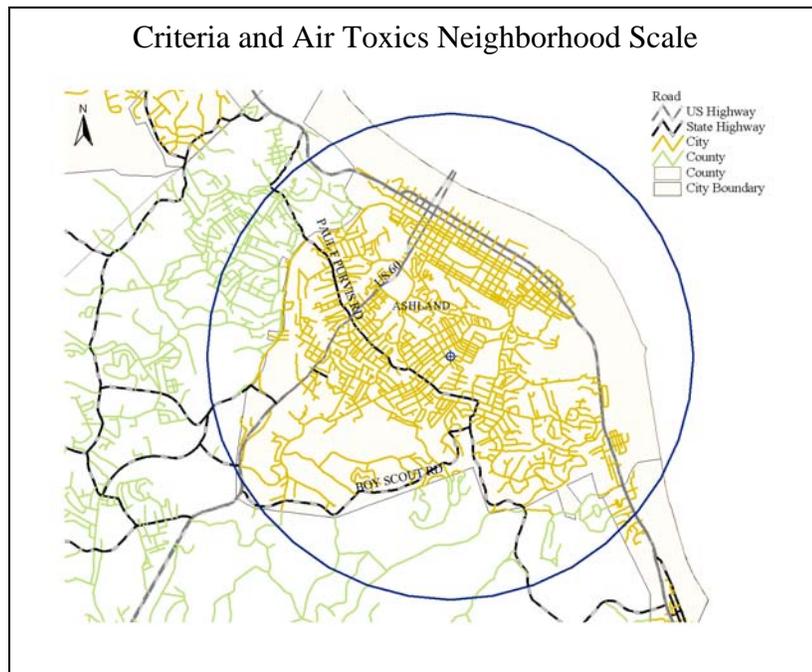
Carbonyls	SPM	EPA method TO-11A	24-hours every sixth day
Meteorological	Other	AQM grade instruments for wind speed, wind direction, humidity and temperature	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on a neighborhood scale for particulates, sulfur dioxide, ozone and air toxics. This site also represents population exposure on an urban scale for nitrogen dioxide.



**401 KAR 50:020 Air Quality Control Region:** Huntington (WV)-Ashland (KY)-Portsmouth-Ironton (OH) Interstate (103)

**CSA/MSA:** Huntington-Ashland, WV-KY-OH MSA

**Site Name:** Worthington

**AQS Site ID:** 21-089-0007

**Location:** Scott Street and Center Avenue, Worthington, KY 41183

**County:** Greenup

**GPS Coordinates:** 38.548333, -82.731667

**Date Established:** October 12, 1980

**Inspection Date:** October 29, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of a water tower near the intersection of Scott Street and Center Avenue in Worthington, Kentucky. The sample inlets are 13 feet above ground level and 57 feet from the nearest road. The most recent site inspection was conducted on October 29, 2007. Upon inspection, the sample lines and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards; to detect elevated pollutant levels for activation of emergency control procedures for nitrogen dioxide, ozone and sulfur dioxide; and to provide pollutant levels for daily air quality index reporting.

**Monitors:**

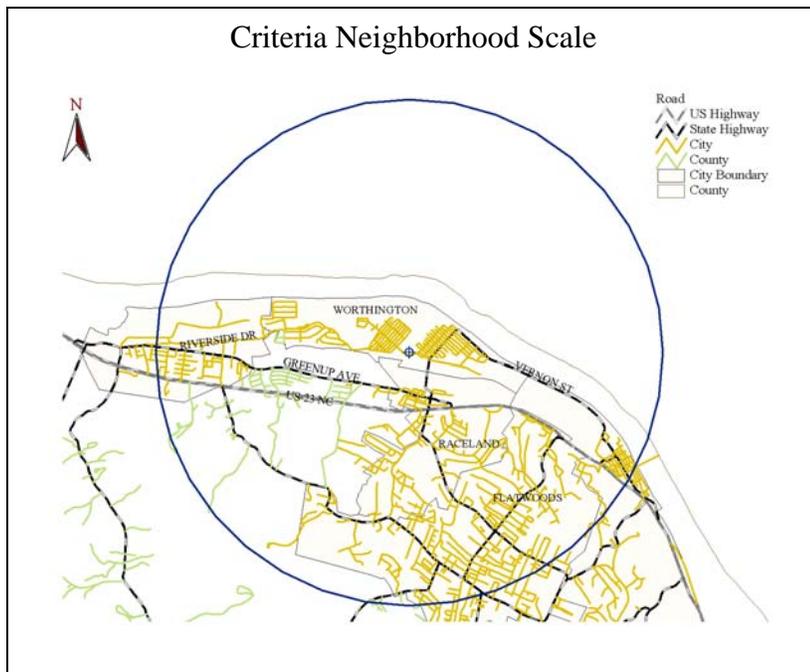
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SLAMS	UV photometry	Continuously March 1 – October 31
AEM Sulfur Dioxide	SPM	UV fluorescence	Continuously

**Quality Assurance Status:**

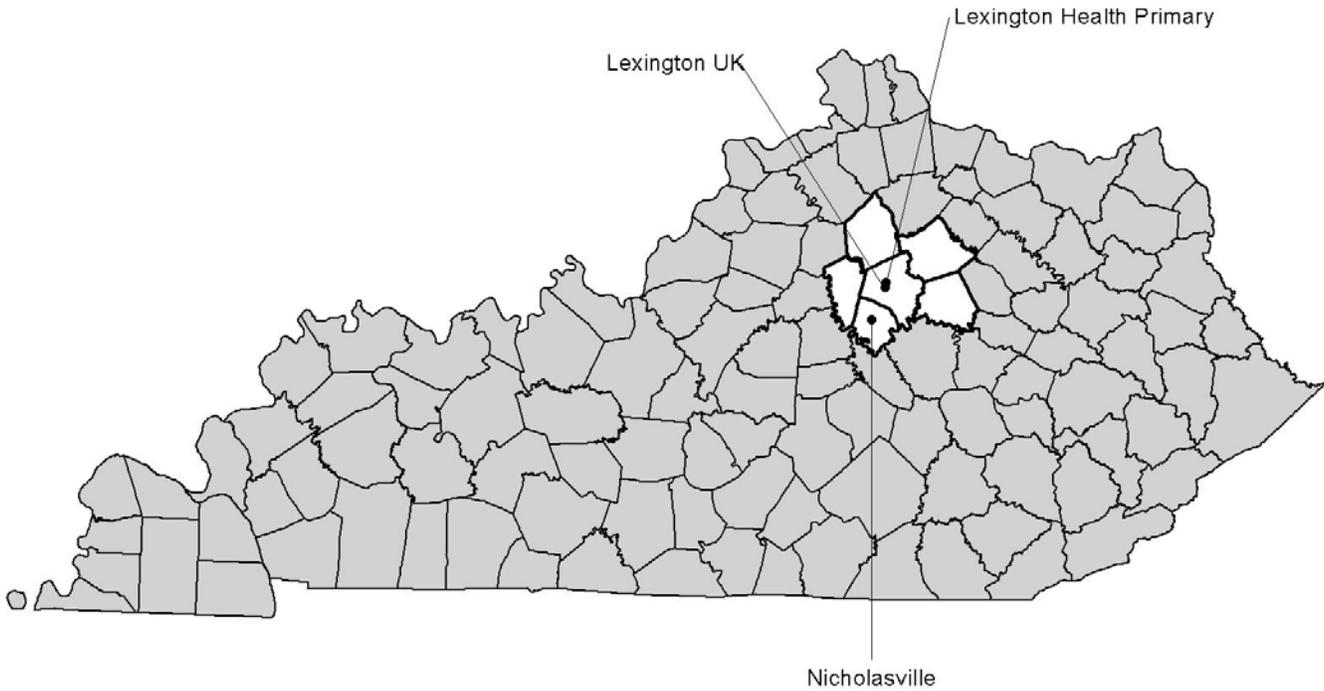
All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on a neighborhood scale for ozone and sulfur dioxide.



# Lexington-Fayette, KY



AIRS ID	ADDRESS	PM2.5	PM10	SO2	NO2	CO	O3	Metals	Hg	Wet Dep.	VOC	Carb-onyl	Speciation	MET
21-067-0012	650 Newtown Pike Lexington (Fayette)	X(t)		X(eI)	X(e)		X (eI)				X(s)	X(s)	X(s)	
21-067-0014	533 South Limestone Lexington (Fayette)	X	X					X(s)						
21-113-0001	KY DOT Garage, US 27 Bypass Nicholasville (Jessamine)			X(s)			X		X	HG				X
<b>TOTAL</b>		<b>3</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>

- (e) Emergency Episode Monitor
- (I) Air Quality Index Monitor
- (s) Special Purpose Monitor
- (t) Continuous PM Monitor

(Rev.5/23/08)

**401 KAR 50:020 Air Quality Control Region:** Bluegrass Intrastate (102)  
**CSA/MSA:** Lexington-Fayette-Frankfort-Richmond, KY CSA / Lexington-Fayette, KY MSA  
**Site Name:** Lexington Primary  
**AQS Site ID:** 21-067-0012  
**Location:** Fayette County Health Department, 650 Newtown Pike, Lexington, KY 40508  
**County:** Fayette  
**GPS Coordinates:** 38.065000, -84.500000  
**Date Established:** November 8, 1979  
**Inspection Date:** October 31, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the Fayette County health department building in Lexington, Kentucky. The sample inlets are 13 feet above ground level and 385 feet from the nearest road. The most recent site inspection was conducted on October 31, 2007. Upon inspection, the sample lines and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D, E and G.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards; to detect elevated pollutant levels for activation of emergency control procedures for nitrogen dioxide, ozone and sulfur dioxide; to provide pollutant levels for daily air quality index reporting; and to observe pollution trends for national data analysis for ozone.

**Monitors:**

Monitor Type	Designation	Analysis Method	Frequency of Sampling
ARM Nitrogen Dioxide	SLAMS EPISODE	Chemiluminescence	Continuously
AEM Ozone	SLAMS AQI EPISODE	UV photometry	Continuously March 1 – October 31
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every third day
PM <sub>2.5</sub> Speciation	SLAMS	Thermal optical, ion chromatography, and X-ray fluorescence	24-hours every sixth day
PM <sub>2.5</sub> TEOM	SPM AQI	Tapered element oscillating microbalance, gravimetric	Continuously
AEM Sulfur Dioxide	SLAMS AQI EPISODE	UV fluorescence	Continuously
Volatile Organics Compound	SPM	EPA method TO-15	24-hours every sixth day

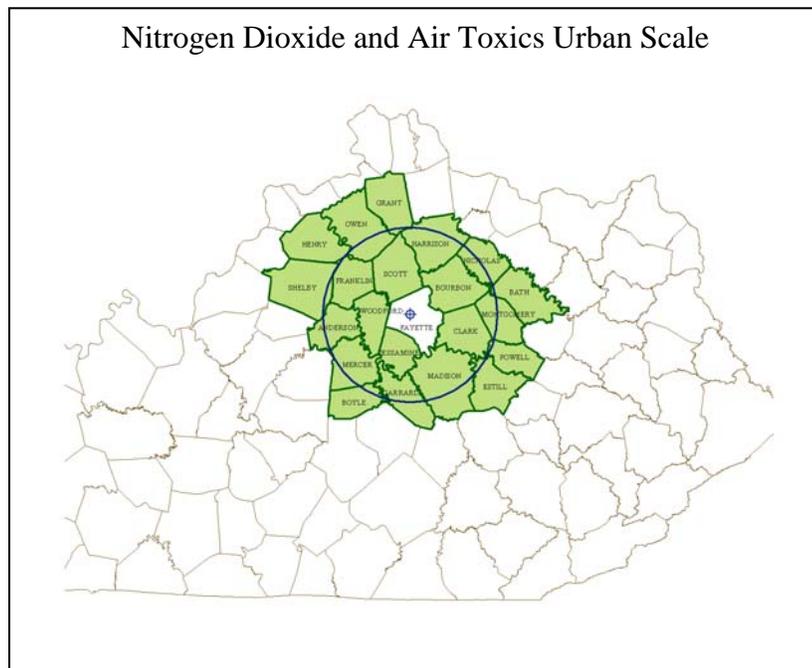
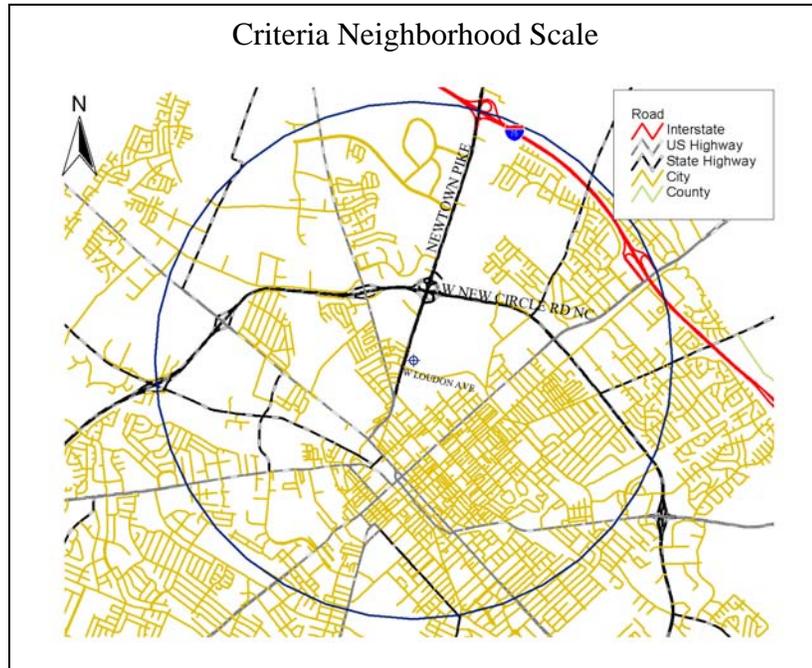
Carbonyls	SPM	EPA method TO-11A	24-hours every sixth day
RadNet	NA	EPA fixed station	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on a neighborhood scale for particulates, sulfur dioxide and ozone. This site also represents population exposure on an urban scale for nitrogen dioxide and air toxics.



**401 KAR 50:020 Air Quality Control Region:** Bluegrass Intrastate (102)  
**CSA/MSA:** Lexington-Fayette-Frankfort-Richmond, KY CSA / Lexington-Fayette, KY MSA  
**Site Name:** U.K. Lexington  
**AQS Site ID:** 21-067-0014  
**Location:** 533 South Limestone, Lexington, KY 40508  
**County:** Fayette  
**GPS Coordinates:** 38.038889, -84.507500  
**Date Established:** October 2, 1982  
**Inspection Date:** October 31, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is located on the roof of the Whalen Transportation Research Building on the University of Kentucky campus in Lexington, Kentucky. The sample inlets are 32 feet above ground level and 60 feet from the nearest road. The most recent site inspection was conducted on October 31, 2007. Upon inspection, the sample inlets and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards.

**Monitors:**

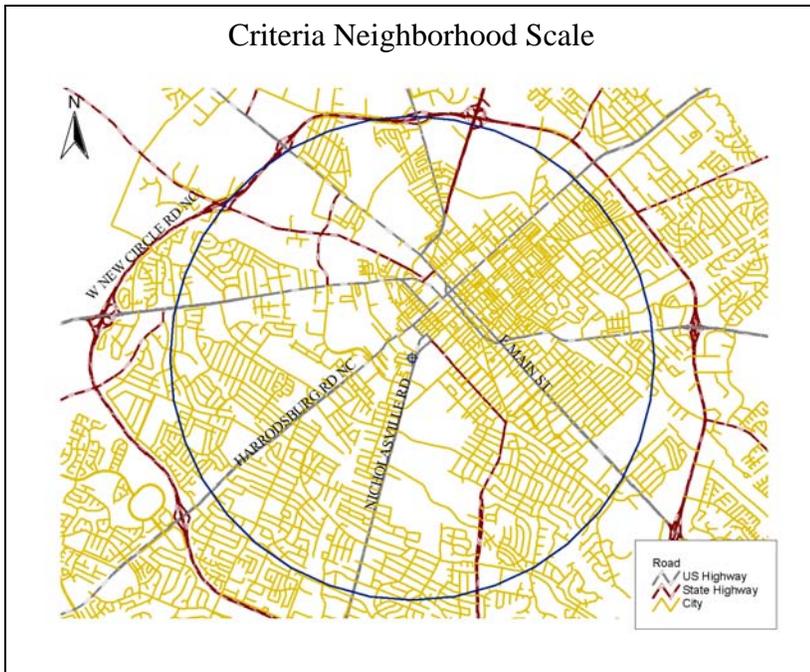
Monitor Type	Designation	Analysis Method	Frequency of Sampling
FRM PM <sub>10</sub>	SLAMS	Gravimetric	24-hours every sixth day
- Metals PM <sub>10</sub>	SPM	Determined from the PM <sub>10</sub> sample using EPA method IO 3.4	Same as PM <sub>10</sub>
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every third day

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

The site represents population exposure on a neighborhood scale.



**401 KAR 50:020 Air Quality Control Region:** Bluegrass Intrastate (102)  
**CSA/MSA:** Lexington-Fayette-Frankfort-Richmond, KY CSA / Lexington-Fayette, KY MSA  
**Site Name:** Nicholasville  
**AQS Site ID:** 21-113-0001  
**Location:** DOT Garage, US 27 Bypass, Nicholasville, KY 40356  
**County:** Jessamine  
**GPS Coordinates:** 37.893333, -84.589167  
**Date Established:** August 1, 1991  
**Inspection Date:** October 31, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the Kentucky DOT Garage in Nicholasville, Kentucky. The sample inlets are 17 feet above ground level and 372 feet from the nearest road. The most recent site inspection was conducted on October 31, 2007. Upon inspection, the sample inlets and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards and to provide ozone data upwind of the Lexington area.

**Monitors:**

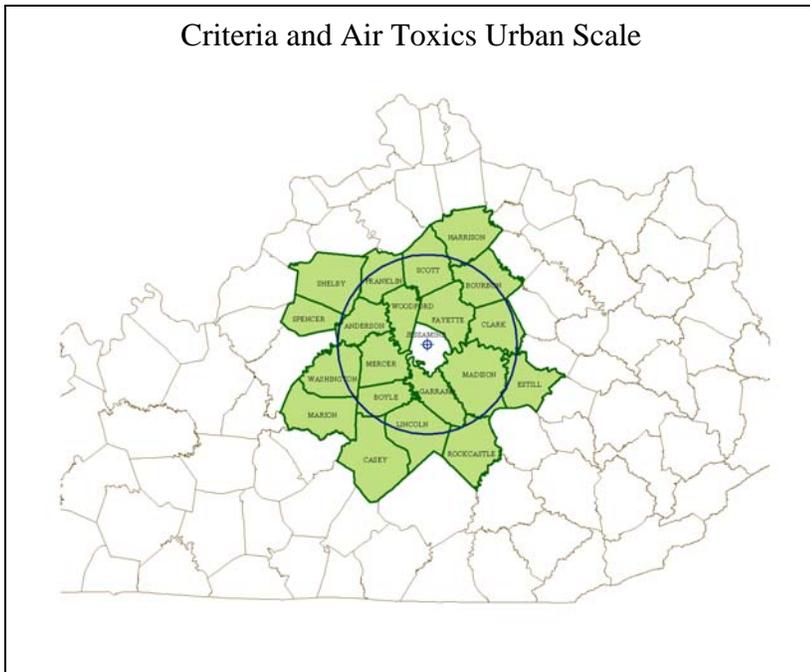
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SLAMS	UV photometry	Continuously March 1 – October 31
AEM Sulfur Dioxide	SPM	UV fluorescence	Continuously
Mercury - ambient	SPM	Cold vapour atomic fluorescence spectrometry	Continuously
Mercury – Wet Deposition	SPM	Wet deposition collected, analysis of sample by the Environmental Services Laboratory	Weekly
Meteorological	Other	AQM grade instruments for wind speed, wind direction, humidity, barometric pressure and temperature	Continuously

**Quality Assurance Status:**

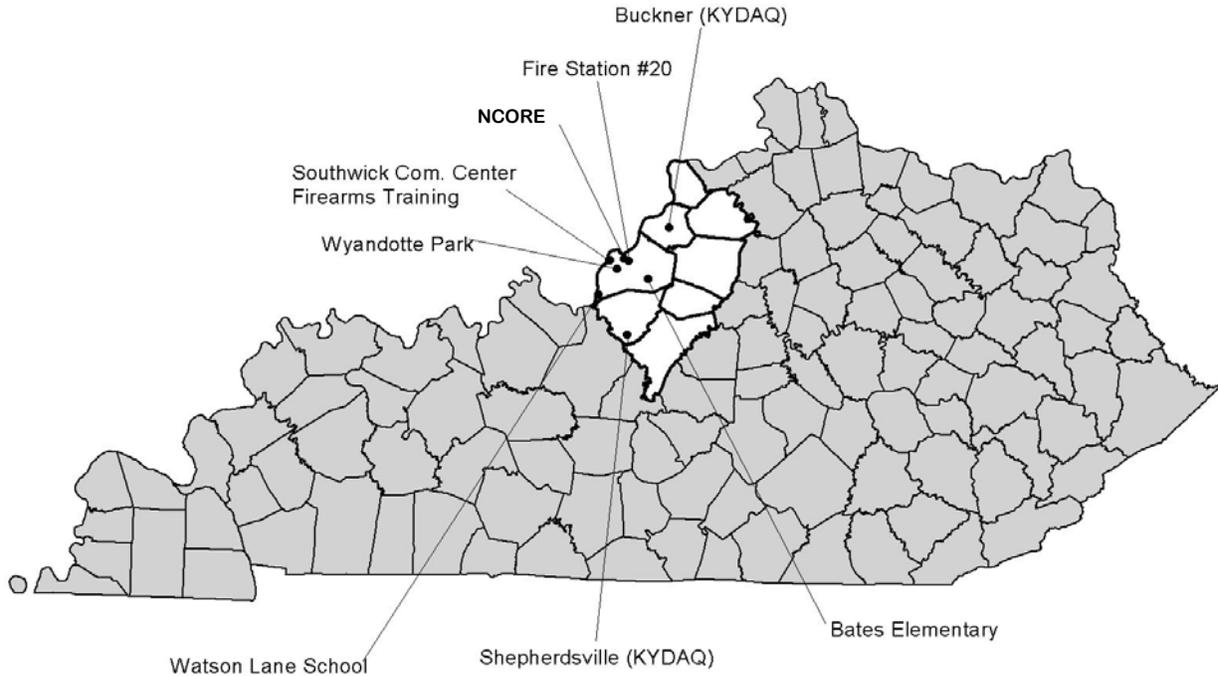
All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on an urban scale.



# Louisville-Jefferson County, KY-IN



AIRS ID	ADDRESS	PM2.5	PM10	SO2	NO2	CO	O3	Metals	Hg	Wet Dep.	VOC	Carb-onyl	Speciation	MET
21-029-0006	2nd & Carpenter Streets Shepherdsville (Bullitt)	X					X							X
21-185-0004	DOT Garage, 3995 Morgan Rd Buckner (Oldham)						X							
21-111-0027	7601 Bardstown Road Louisville (Jefferson)	Xt(s)					X(I)							
21-111-0043	3621 Southern Avenue Louisville (Jefferson)	X(ctl)	X(c)											X
21-111-0044	1032 Beecher Avenue Louisville (Jefferson)	X	X(tl)											
21-111-0051	7201 Watson Lane Louisville (Jefferson)	X(tsl)		X(I)			X(I)							
21-111-0067	2730 Cannons Lane Louisville (Jefferson)	X(t)	X	X	X	X	X						X	X
21-111-1019	1735 Bardstown Road Louisville (Jefferson)					X(I)								
21-111-1041	4201 Algonquin Parkway Louisville (Jefferson)			X(Ie)										
<b>TOTAL</b>		<b>11</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>3</b>

- (c) Collocated Monitor
- (e) Emergency Episode Monitor
- (I) Air Quality Index Monitor
- (s) Special Purpose Monitor
- (t) Continuous PM Monitor

**401 KAR 50:020 Air Quality Control Region:** North Central Kentucky Intrastate (104)  
**CSA/MSA:** Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN CSA / Louisville-Jefferson County, KY-IN MSA  
**Site Name:** Shepherdsville  
**AQS Site ID:** 21-029-0006  
**Location:** Second and Carpenter Streets, Shepherdsville, KY 40165  
**County:** Bullitt  
**GPS Coordinates:** 37.98556, -85.713056  
**Date Established:** January 30, 1992  
**Inspection Date:** November 6, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located in a fenced in area near the intersection of Second and Carpenter Streets in Shepherdsville, Kentucky. The sample inlets are 13 feet above ground level and 70 feet from the nearest road. The most recent site inspection was conducted on November 6, 2007. Upon inspection, the sample lines and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards.

**Monitors:**

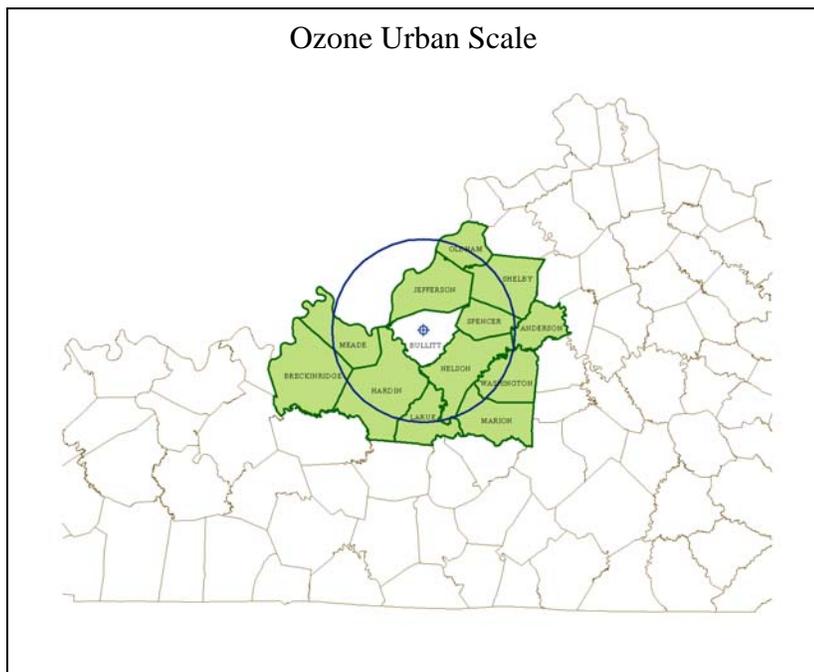
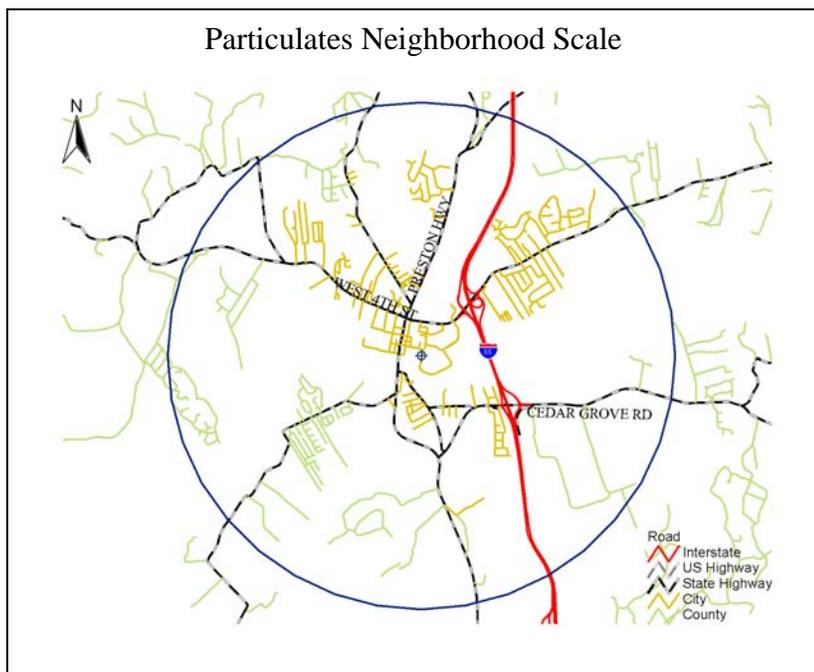
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SLAMS	UV photometry	Continuously March 1 – October 31
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every third day
Meteorological	Other	AQM grade instruments for wind speed, wind direction, humidity, barometric pressure and temperature	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

### Area Representativeness:

This site represents population exposure on a neighborhood scale for particulates and population exposure on an urban scale for ozone.



**401 KAR 50:020 Air Quality Control Region:** North Central Kentucky Intrastate (104)  
**CSA/MSA:** Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN CSA / Louisville-Jefferson County, KY-IN MSA  
**Site Name:** Buckner  
**AQS Site ID:** 21-185-0004  
**Location:** DOT Garage, 3995 Morgan Road, Buckner, KY 40010  
**County:** Oldham  
**GPS Coordinates:** 38.398611, -85.443333  
**Date Established:** May 1, 1981  
**Inspection Date:** December 21, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the Kentucky DOT Highway Garage in Buckner, Kentucky. The sample inlets are 13 feet above ground level and 250 feet from the nearest road. The most recent site inspection was conducted on December 21, 2007. Upon inspection, the sample line and monitor were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards.

**Monitors:**

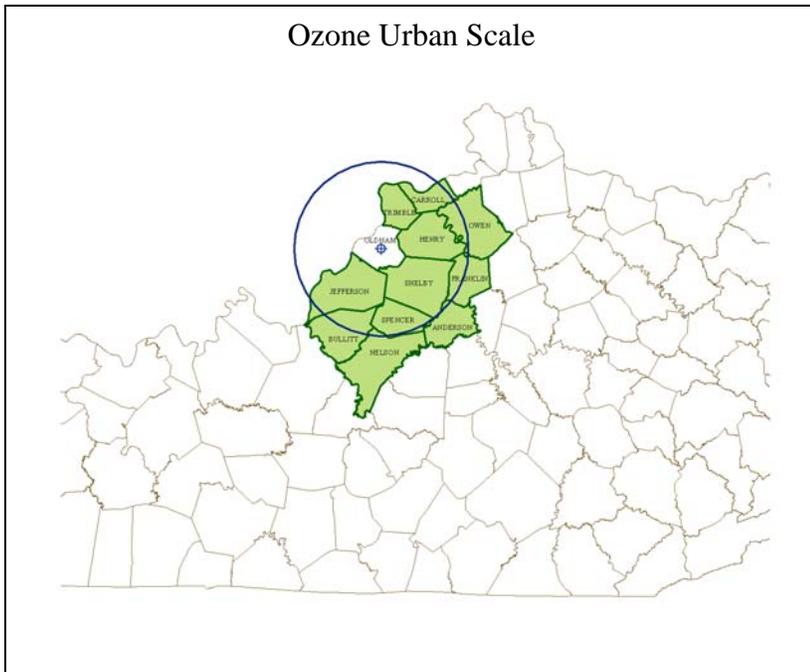
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SLAMS	UV photometry	Continuously March 1 – October 31

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents maximum concentrations on an urban scale.



## **National Core (NCore) Multi-pollutant Monitoring Stations:**

In October 2006 the United States Environmental Protection Agency (EPA) issued final amendments to the ambient air monitoring regulations for criteria pollutants. These amendments are codified in 40 CFR parts 53 and 58. The purpose of the amendments was to enhance ambient air quality monitoring to better serve current and future air quality needs. One of the most significant changes in the regulations was the requirement to establish National Core (NCore) multi-pollutant monitoring stations. These stations will provide data on several pollutants at lower detection limits and replace the National Air Monitoring Station (NAMS) networks that have existed for several years. The final network plan must be submitted to EPA by July 1, 2009 and the stations must be operational by January 1, 2011.

The NCore Network addresses the following monitoring objectives:

- timely reporting of data to the public through AIRNow, air quality forecasting, and other public reporting mechanisms
- support development of emission strategies through air quality model evaluation and other observational methods
- accountability of emission strategy progress through tracking long-term trends of criteria and non-criteria pollutants and their precursors
- support long-term health assessments that contribute to ongoing reviews of the National Ambient Air Quality Standards (NAAQS)
- compliance through establishing nonattainment/attainment areas by comparison with the NAAQS
- support multiple disciplines of scientific research, including; public health, atmospheric and ecological

In 2007, EPA provided funding to the Louisville Metro Air Pollution Control District (LMAPCD) to begin the process of establishing an NCore station in Jefferson County. In January 2008, the Kentucky Division for Air Quality delegated the responsibility for establishing and operating an NCore station to the District. Based on an evaluation of the existing network, historical data, census data, meteorology, and topography the District recommends the following changes to its air monitoring network to become effective January 1, 2009.

**Recommended changes to Ambient Air Monitoring Network to accommodate NCore sampling strategy:**

- 1) Establish an NCore multi-pollutant monitoring station in Jefferson County. The proposed location of the NCore site is 2730 Cannons Lane. The site was chosen based on an analysis of existing monitoring data, historical meteorological patterns, emission trends, traffic patterns, and our current understanding of secondary aerosol formation and transport.
- 2) Move carbon monoxide monitoring from NAMS Site 21-111-0046 at 3510 Goldsmith Lane to the NCore station. This site was established in 1987 as part of the legacy NAMS network and was designed to observe pollution trends for national data analysis. The NAAQS for carbon monoxide is 35 ppm for the 1-hour standard and 9 ppm for the 8-hour standard. Measured values at this site have not violated either standard and current maximum values are approximately 8% of the 1-hour and 35% of the 8-hour standard. The 2007 8-Hour Design Value for this site was 2.7 ppm. In 2007, 71% of the 1-hour values were below 0.50 ppm with only 0.09% above 2.0 ppm which indicates that most measurements are near the nominal detection limit of the current instrumentation. Integration of this site into the NCore station using trace level monitoring technologies will provide a more accurate assessment of neighborhood scale carbon monoxide levels within the Louisville Metro Area.
- 3) Move ozone and special purpose NO<sub>x</sub> monitoring from NAMS site 21-111-1021 at 1019 Mellwood Avenue to the NCore station. This site was established in 1973 as a NAMS site for Ozone and includes a NO<sub>x</sub> monitor. The NAAQS for ozone is 0.08 ppm and is based on a 3-year average of the 4<sup>th</sup> highest 8-hour averages. Measurements at the site indicate the site has not violated the ozone standard for the past 7 years. The NAAQS for NO<sub>2</sub> is 0.053 ppm and is based on an annual mean. Measurements at the site have not violated the NO<sub>2</sub> standard. The principal value of this site is the use of NO<sub>x</sub> and ozone data for studying ozone formation and transport. Because the enhanced monitoring capabilities at the NCore station will better accomplish this task and will be located within the same air shed, continued operation of this site is no longer needed or cost effective.
- 4) Move the PM<sub>2.5</sub> speciation sampler from Site 21-111-0043 (3621 Southern Avenue) to the NCore Station. The primary purpose of speciation sampling is to study transport and formation of the secondary aerosols which make up a substantial portion of PM<sub>2.5</sub> mass. Sulfates and nitrates are the predominant species of concern. Integrating these measurements with trace level SO<sub>2</sub>, trace level NO<sub>y</sub>, PM<sub>2.5</sub>/PM<sub>coarse</sub>, and enhanced meteorological measurements will provide a more complete and accurate assessment of secondary aerosol formation in the Louisville Metro Area.
- 5) Relocate the FRM PM<sub>2.5</sub> sampler from the SLAMS site 21-111-0048 to site 21-111-0067. The sampling equipment is located on the roof of a 3-story building at 850 Barret Avenue and is accessed by a roof hatch. An inspection by Metro-OSHA identified safety concerns with the hatch and Metro Facilities restricted access to the roof in April 2008. Due to ongoing safety concerns with the roof hatch and access restrictions, the site is to be discontinued. Site 21-111-0067 meets urban scale siting for PM<sub>2.5</sub> and overlaps most residential areas monitored by 21-111-0048. This action also establishes a new PM<sub>2.5</sub> monitoring presence in an area that is experiencing significant growth.

**401 KAR 50:20 Air Quality Control Region:** Louisville Interstate (078)

**CSA/MSA:** Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN CSA/Louisville-Jefferson County, Kentucky, KY-IN MSA

**Site Name:** Cannons Lane

**AQS ID:** 21-111-0067

**Location:** 2730 Cannons Lane

**County:** Jefferson

**GPS Coordinates:** 38.24012, -85.73256

**Date Established:** July 1, 2008

**Inspection Date:** May 17, 2008

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Pending



The station will be located on the grounds of the proposed Cannons Lane air monitoring building.

**Monitoring Objective:**

Determine compliance with NAAQS; observe pollution trends for national data analysis, provide pollution levels for daily index reporting; and provide data for scientific studies.

**Monitors:**

Monitor Type	Designation	Analysis Method	Frequency of Sampling
ARM Carbon Monoxide (CO)	NCore/AQI	Automated Reference Method utilizing trace level non-dispersive infrared analysis.	Continuously
ARM Nitrogen Oxide (NO <sub>x</sub> )	NCore/AQI	Automated Reference Method utilizing chemiluminescence analysis.	Continuously
AEM Ozone (O <sub>3</sub> )	NCore/AQI	Automated Reference Method utilizing UV photometry analysis.	Continuously
AEM Sulfur Dioxide (SO <sub>2</sub> )	NCore/AQI	Automated Reference Method utilizing trace level UV fluorescence analysis	Continuously
FRM PM <sub>2.5</sub>	NCore	Federal Reference Method utilizing gravimetric analysis.	1/3 days
PM <sub>2.5</sub> TEOM	NCore/AQI	Federal Equivalent Method* utilizing <u>T</u> apered <u>E</u> lement <u>O</u> scillating <u>M</u> icrobalance/gravimetric analysis	Continuously

PM <sub>coarse</sub>	NCore	Federal Reference Method PM <sub>10</sub> utilizing differential gravimetric analysis.	1/3 days
PM <sub>2.5</sub> Speciation	NCore	Multi-species utilizing thermal optical, ion chromatography, gravimetric, and X-ray fluorescence analyses.	1/6 days
Total Reactive Nitrogen (NO <sub>y</sub> )	NCore	Trace level chemiluminescence analysis.	Continuously
Meteorological	NCore	Air quality measurements approved instrumentation for wind speed, wind direction, humidity, barometric pressure, solar radiation, rainfall, and temperature	Continuously

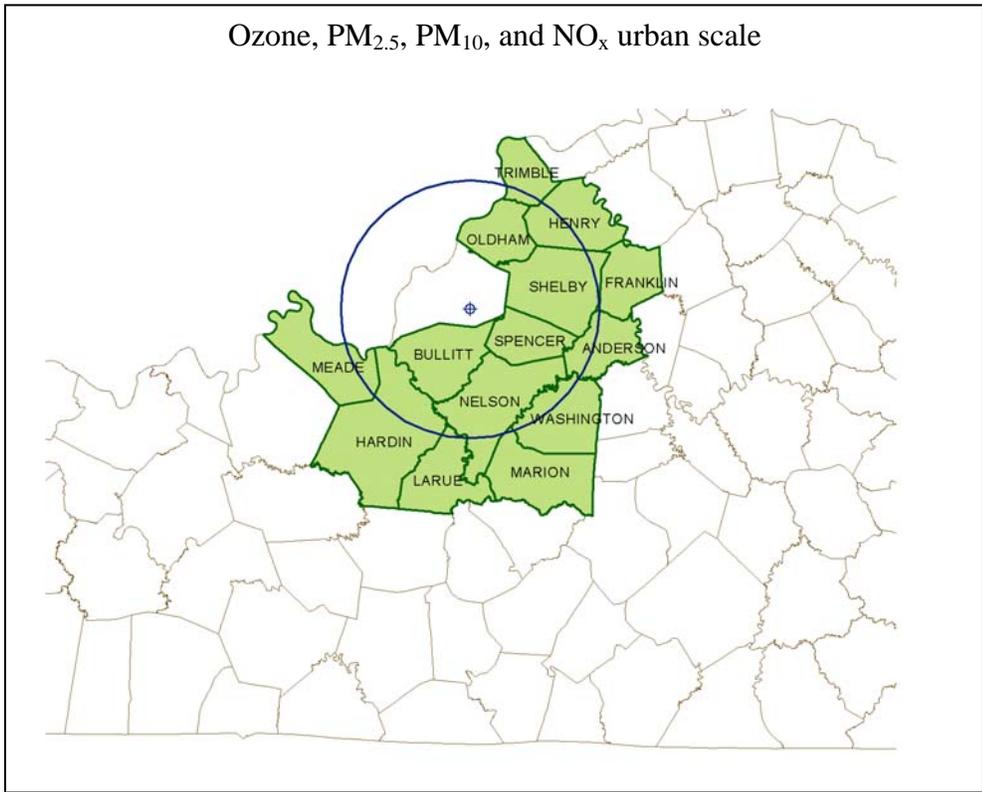
\* Pending

**Quality Assurance Status:**

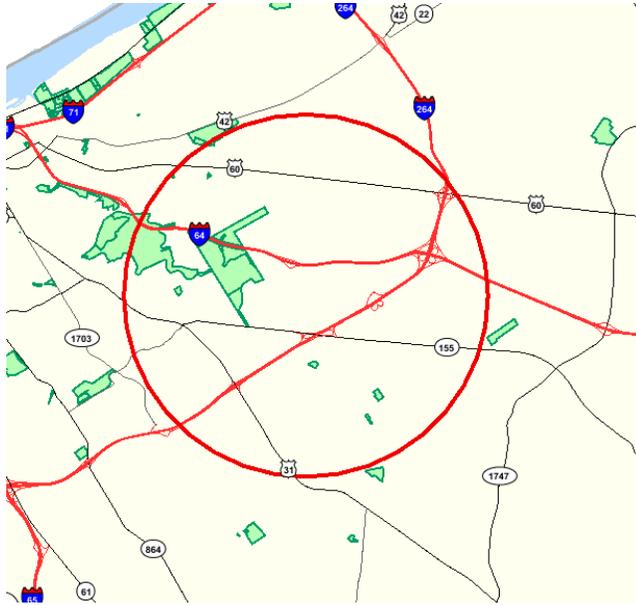
All Quality Assurance procedures shall be implemented in accordance with 40 CFR 58, Appendix A.

**Area of Representativeness:**

Urban NCore stations are to be located at the urban or neighborhood scale to provide representative concentrations of exposure expected throughout the metropolitan area.



# CO neighborhood scale



**401 KAR 50:020 Air Quality Control Region:** Louisville Interstate (078)  
**CSA/MSA:** Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN CSA / Louisville-Jefferson County, KY-IN MSA  
**Site Name:** Bates Elementary  
**AQS Site ID:** 21-111-0027  
**Location:** Bates Elementary School, 7601 Bardstown Road, Louisville, KY 40291  
**County:** Jefferson  
**GPS Coordinates:** 38.137222, -85.578333  
**Date Established:** January 4, 1973  
**Inspection Date:** October 9, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the Bates Elementary School in Louisville, Kentucky. The sample inlets are 13 feet above ground level and 1000 feet from the nearest road. The most recent site inspection was conducted on October 9, 2007. The air monitoring site was found to be in compliance with 40 CFR Part 58, Appendices C, D, E and G.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards and to provide pollution levels for daily index reporting.

**Monitors:**

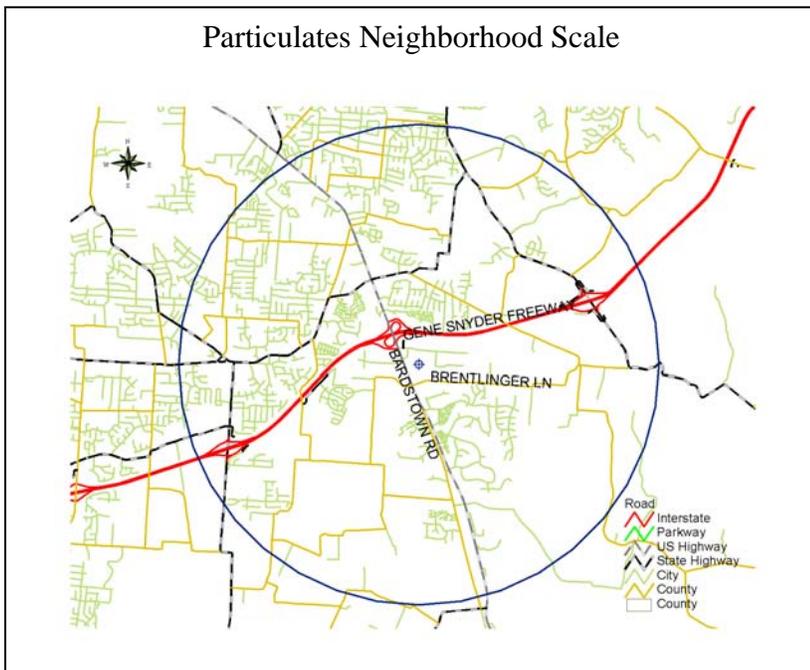
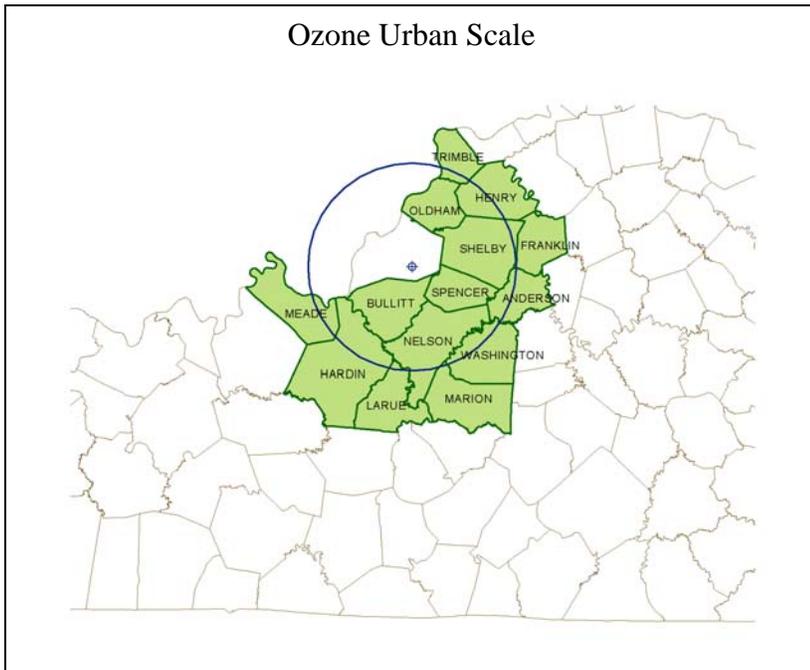
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SLAMS AQI	UV photometry	Continuously March 1 – October 31
PM <sub>2.5</sub> TEOM	Other AQI	Tapered element oscillating microbalance, gravimetric	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR Part 58, Appendix A.

**Area Representativeness:**

The site represents population exposure on an urban scale for ozone. This site also represents population exposure on a neighborhood scale for fine particulates.



**401 KAR 50:020 Air Quality Control Region:** Louisville Interstate (078)

**CSA/MSA:** Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN CSA / Louisville-Jefferson County, KY-IN MSA

**Site Name:** Southwick Community Center

**AQS Site ID:** 21-111-0043

**Location:** Southwick Community Center, 3621 Southern Avenue, Louisville, KY 40211

**County:** Jefferson

**GPS Coordinates:** 38.232222, -85.825278

**Date Established:** July 1, 1983

**Inspection Date:** October 9, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is located on the roof of the Southwick Park Community Center in Louisville, Kentucky. The sample inlets are 16 feet above ground level and 200 feet from the nearest road. The most recent site inspection was conducted on October 9, 2007. The air monitoring site was found to be in compliance with 40 CFR Part 58, Appendices C, D, E and G.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards and to provide pollution levels for daily index reporting.

**Monitors:**

Monitor Type	Designation	Analysis Method	Frequency of Sampling
PM <sub>10</sub> TEOM	AQI	Tapered element oscillating microbalance, gravimetric	Continuously
- Collocated PM <sub>10</sub> TEOM	AQI	Tapered element oscillating microbalance, gravimetric	Continuously
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours everyday
- Collocated FRM PM <sub>2.5</sub>	Other	Gravimetric	24-hours every sixth day
PM <sub>2.5</sub> TEOM	Other AQI	Tapered element oscillating microbalance, gravimetric	Continuously
Meteorological	Other	AQM grade instruments for wind speed, wind direction, humidity, barometric pressure and temperature	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on a neighborhood scale for particulates. This site also represents population exposure, highest concentration for the SLAMS speciation particulates.



**401 KAR 50:020 Air Quality Control Region:** Louisville Interstate (078)

**CSA/MSA:** Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN CSA / Louisville-Jefferson County, KY-IN MSA

**Site Name:** Wyandotte Park

**AQS Site ID:** 21-111-0044

**Location:** Wyandotte Park, 1032 Beecher Avenue, Louisville, KY 40215

**County:** Jefferson

**GPS Coordinates:** 38.190833, -85.780556

**Date Established:** September 1, 1983

**Inspection Date:** October 9, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is located on the roof of the pool house at Wyandotte Park in Louisville, Kentucky. The sample inlets are 16 feet above ground level and 150 feet from the nearest road. The most recent site inspection was conducted on October 9, 2007. The air monitoring site was found to be in compliance with 40 CFR Part 58, Appendices C, D, E and G.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards; to observe pollution trends for national data analysis; and to provide pollution levels for daily index reporting.

**Monitors:**

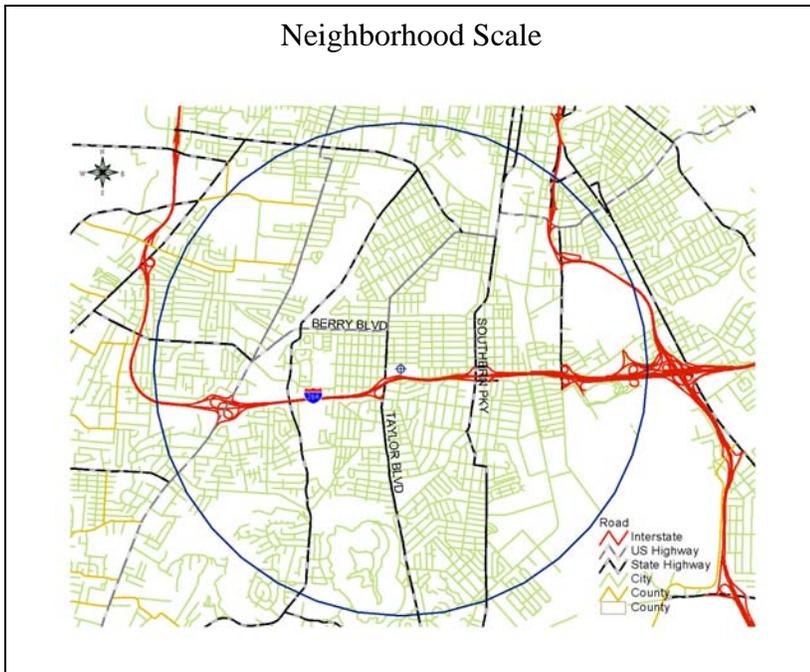
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM PM <sub>10</sub> TEOM	AQI	Tapered element oscillating microbalance, gravimetric	Continuously
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours everyday

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

The site represents population exposure on a neighborhood scale.



**401 KAR 50:020 Air Quality Control Region:** Louisville Interstate (078)  
**CSA/MSA:** Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN CSA / Louisville-Jefferson County, KY-IN MSA  
**Site Name:** Watson Lane  
**AQS Site ID:** 21-111-0051  
**Location:** Watson Lane School, 7201 Watson Lane, Louisville, KY 40272  
**County:** Jefferson  
**GPS Coordinates:** 38.060833, -85.896111  
**Date Established:** July 16, 1992  
**Inspection Date:** October 9, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the Watson Lane Elementary School in Louisville, Kentucky. The sample inlets are 13 feet above ground level and 125 feet from the nearest road. The most recent site inspection was conducted on October 9, 2007. The air monitoring site was found to be in compliance with 40 CFR Part 58, Appendices C, D, E and G.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards and to provide pollution levels for daily index reporting.

**Monitors:**

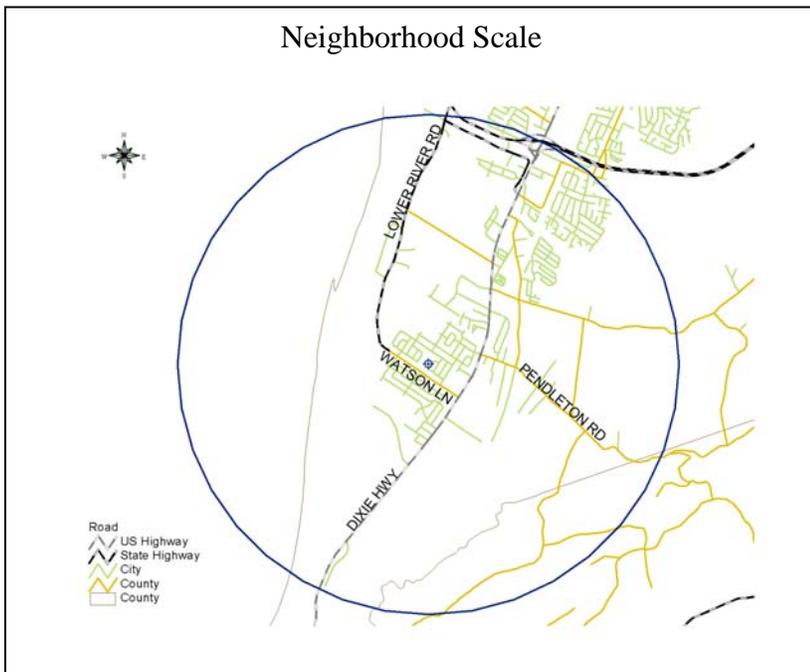
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SLAMS AQI	UV photometry	Continuously March 1 – October 31
FRM PM <sub>2.5</sub>	Other	Gravimetric	24-hours every sixth day
PM <sub>2.5</sub> TEOM	Other AQI	Tapered element oscillating microbalance, gravimetric	Continuously
AEM Sulfur Dioxide	SLAMS AQI	UV fluorescence	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on a neighborhood scale.



**401 KAR 50:020 Air Quality Control Region:** Louisville Interstate (078)

**CSA/MSA:** Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN CSA / Louisville-Jefferson County, KY-IN MSA

**Site Name:** Fire Station 20

**AQS Site ID:** 21-111-0019

**Location:** Fire Station 20, 1735 Bardstown Road, Louisville, KY 40205

**County:** Jefferson

**GPS Coordinates:** 38.228889, -85.702222

**Date Established:** January 1, 1973

**Inspection Date:** October 9, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is located at Fire Station Number 20 on Bardstown Road in Louisville, Kentucky. The sample inlet is 10 feet above ground level and 13 feet from the nearest road. The most recent site inspection was conducted on October 9, 2007. The air monitoring site was found to be in compliance with 40 CFR Part 58, Appendices C, D, E and G.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards and to provide pollution levels for daily index reporting.

**Monitors:**

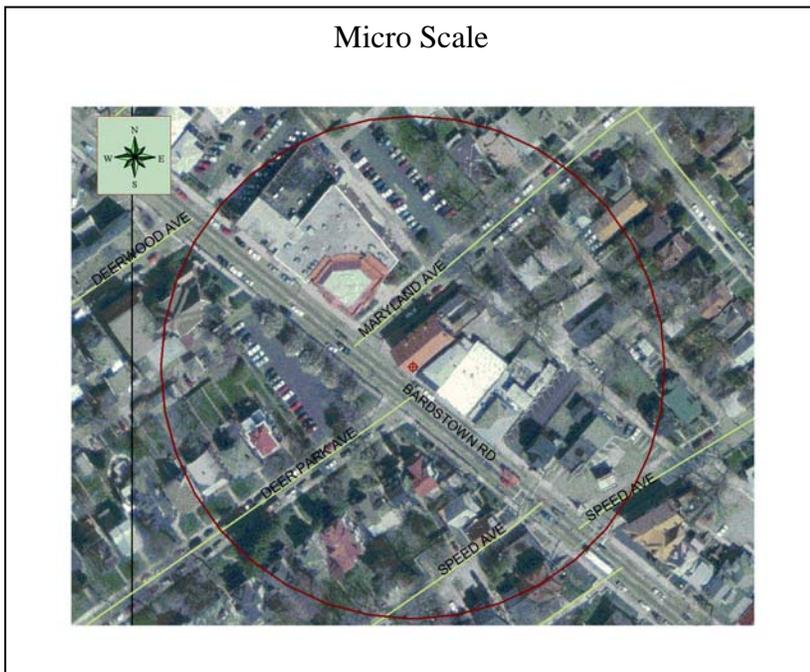
Monitor Type	Designation	Analysis Method	Frequency of Sampling
ARM Carbon Monoxide	SLAMS AQI	Non-dispersive infrared	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents maximum concentration on a micro scale.



**401 KAR 50:020 Air Quality Control Region:** Louisville Interstate (078)  
**CSA/MSA:** Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN CSA / Louisville-Jefferson County, KY-IN MSA  
**Site Name:** Firearms Training  
**AQS Site ID:** 21-111-1041  
**Location:** Firearms Training, 4201 Algonquin Parkway, Louisville, KY 40211  
**County:** Jefferson  
**GPS Coordinates:** 38.231630, -85.826720  
**Date Established:** April 13, 1978  
**Inspection Date:** October 9, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the Firearms Training Center in Louisville, Kentucky. The sample inlet is 15 feet above ground level and 100 feet from the nearest road. The most recent site inspection was conducted on October 9, 2007. The air monitoring site was found to be in compliance with 40 CFR Part 58, Appendices C, D, E and G.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards; to observe pollution trends for national data analysis; to detect episode levels for the activation of emergency control procedures; and to provide pollution levels for daily index reporting.

**Monitors:**

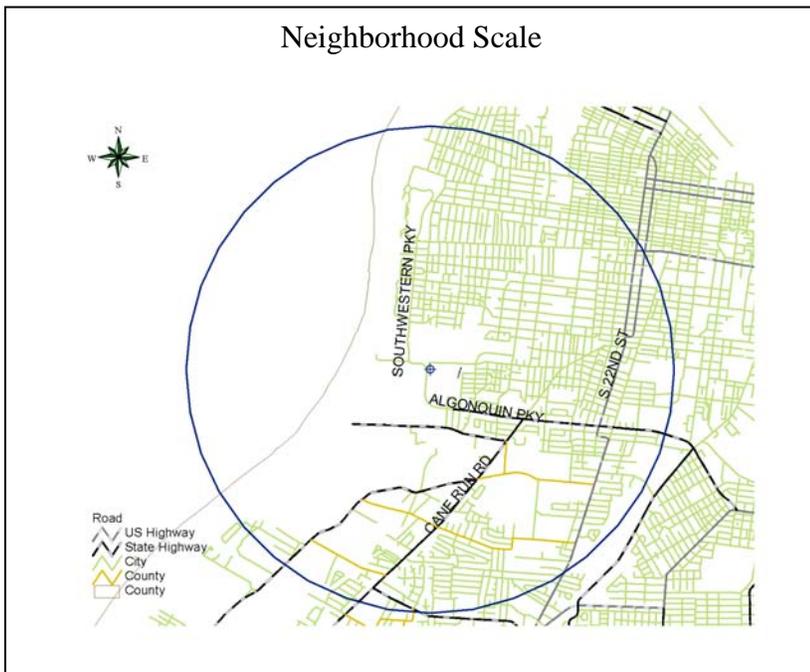
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Sulfur Dioxide	SLAMS EPISODE AQI	UV fluorescence	Continuously

**Quality Assurance Status:**

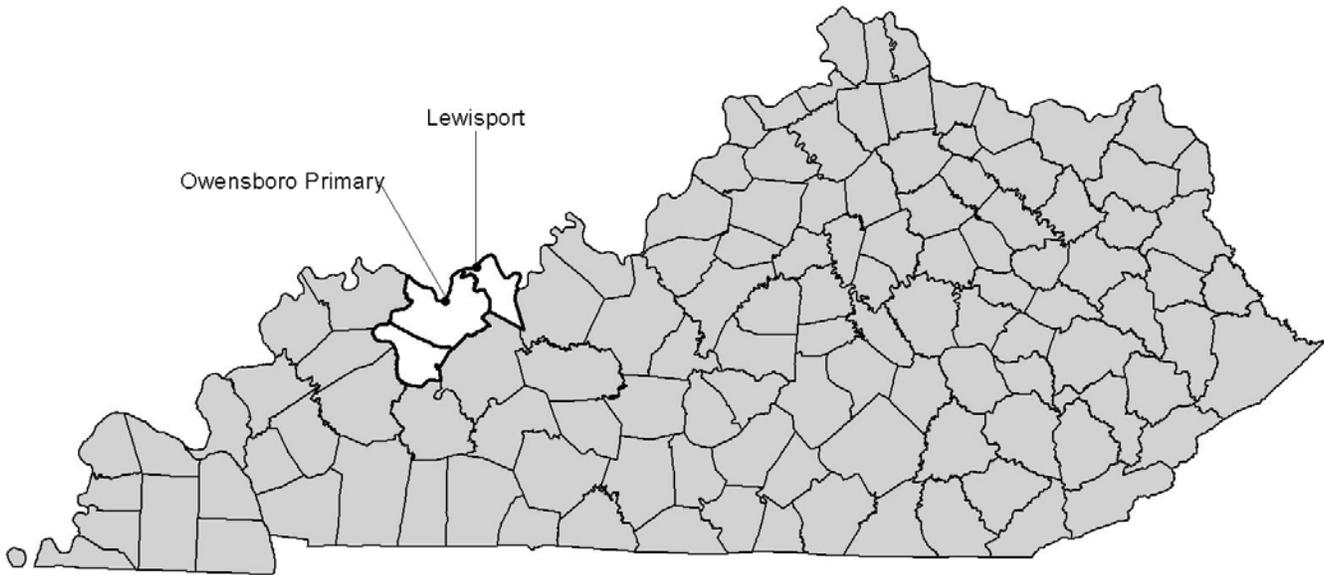
All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on a neighborhood scale.



# Owensboro, KY



AIRS ID	ADDRESS	PM2.5	PM10	SO2	NO2	CO	O3	Metals	Hg	Wet Dep.	VOC	Carb -onyl	Specia- tion	MET
21-059-0005	716 Pleasant Valley Road Owensboro (Davies)	X(tle)		X(el)	X(e)		X(el)							X
21-091-0012	Lewisport Elementary School Lewisport (Hancock)						X							
<b>TOTAL</b>		<b>2</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

- (e) Emergency Episode Monitor
- (l) Air Quality Index Monitor
- (t) Continuous PM Monitor

(Rev.5/23/08)

**401 KAR 50:020 Air Quality Control Region:** Evansville-Owensboro-Henderson Interstate (077)

**CSA/MSA:** Owensboro, KY MSA

**Site Name:** Owensboro Primary

**AQS Site ID:** 21-059-0005

**Location:** 716 Pleasant Valley Road, Owensboro, KY 42303

**County:** Daviess

**GPS Coordinates:** 37.780833, -87.075556

**Date Established:** December 1, 1970

**Inspection Date:** September 18, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds behind the Wyndall's Shopping Center in Owensboro, Kentucky. The sample inlets are 13 feet above ground level and 200 feet from the nearest road. The most recent site inspection was conducted on September 18, 2007. Upon inspection, the sample lines and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D, E and G.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards; to detect emergency pollution levels of criteria pollutants for activation of emergency control procedures; and to provide levels of ozone, particulate matter and sulfur dioxide for daily index reporting.

**Monitors:**

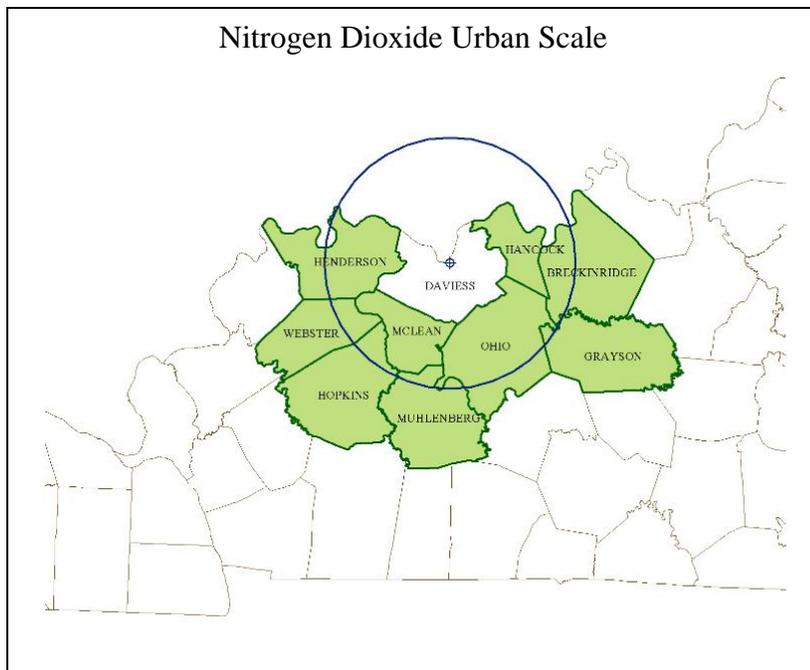
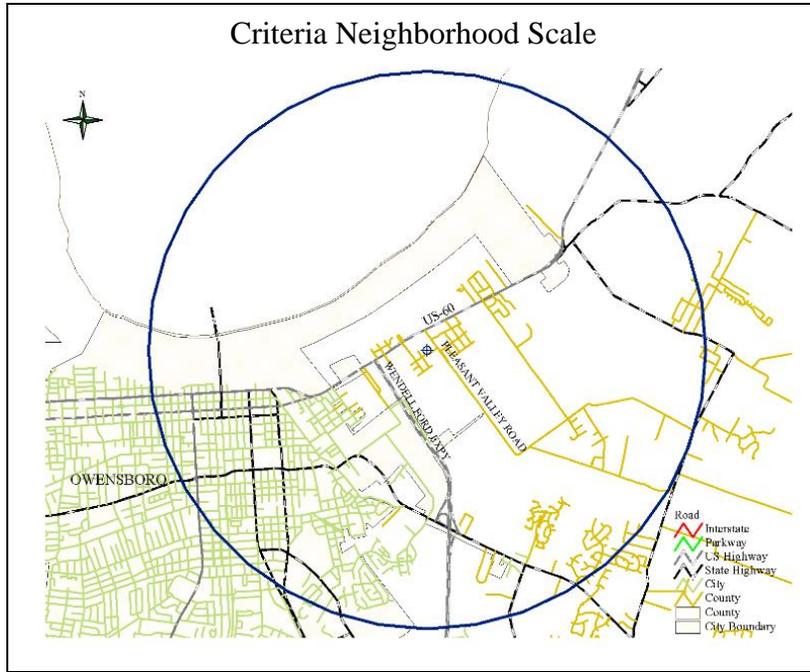
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Nitrogen Dioxide	SLAMS EPISODE	Chemiluminescence	Continuously
AEM Ozone	SLAMS EPISODE AQI	UV photometry	Continuously March 1 – October 31
FRM PM <sub>2.5</sub>	SLAMS EPISODE AQI	Gravimetric	24-hours every third day
PM <sub>2.5</sub> TEOM	SPM	Tapered element oscillating microbalance, gravimetric	Continuously
AEM Sulfur Dioxide	SLAMS EPISODE AQI	UV fluorescence	Continuously
Meteorological	Other	AQM grade instruments for wind speed, wind direction, humidity, barometric pressure and temperature	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on a neighborhood scale for particulates, ozone and sulfur dioxide. This site also represents population exposure on an urban scale for nitrogen dioxide.



**401 KAR 50:020 Air Quality Control Region:** Evansville-Owensboro-Henderson Interstate (077)

**CSA/MSA:** Owensboro, KY MSA

**Site Name:** Lewisport

**AQS Site ID:** 21-091-0012

**Location:** Second and Caroline Streets, Lewisport Elementary School, Lewisport, KY 42351

**County:** Hancock

**GPS Coordinates:** 37.938889, -86.896944

**Date Established:** September 5, 1980

**Inspection Date:** September 18, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the Lewisport Elementary School in Lewisport, Kentucky. The sample inlets are 11 feet above ground level and 175 feet from the nearest road. The most recent site inspection was conducted on September 18, 2007. Upon inspection, the sample line and monitor were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objective is to determine compliance with National Ambient Air Quality Standards.

**Monitors:**

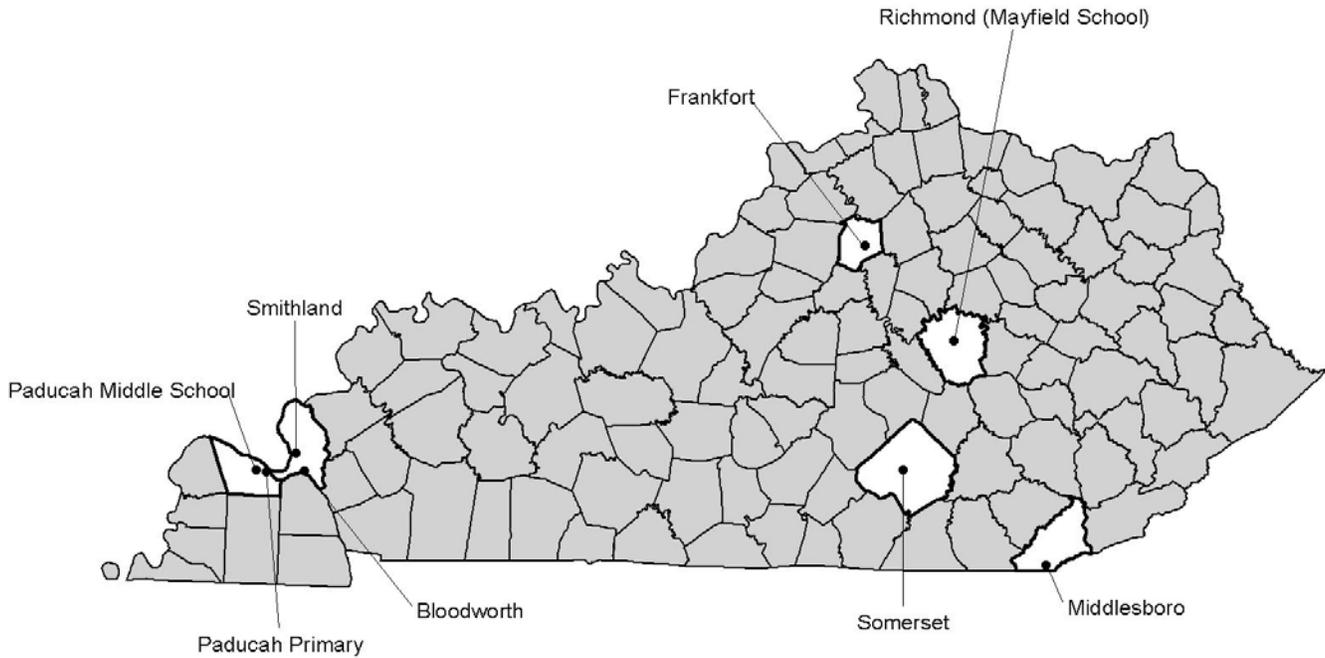
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SLAMS	UV photometry	Continuously March 1 – October 31

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.



# Micropolitan Statistical Areas



AIRS ID	ADDRESS	PM2.5	PM10	SO2	NO2	CO	O3	Metals	Hg	Wet Dep.	VOC	Carbonyl	Speciation	MET
21-013-0002	Airport, 34th & Dorchester Middlesboro (Bell)	X(s)					X(s)							X
21-073-0006	803 Schenkel Lane Frankfort (Franklin)	X												
21-139-0003	DOT Garage, 811 Hwy 60 East Smithland (Livingston)			X			X		X	HG				
21-139-0004	763 Bloodworth Road Livingston County										X			X
21-145-1004	Paducah Middle School 342 Lone Oak Rd Paducah (McCracken)	X	X											
21-145-1024	J-P RECC, 2901 Powell Street Paducah (McCracken)	Xt(Ie)		X(eI)	X(e)		X(eI)							
21-151-0003	Mayfield Elementary, Bond St. Richmond (Madison)	X												
21-199-0003	Somerset Gas Co., Clifty Street Somerset (Pulaski)						X(s)							
<b>TOTAL</b>		<b>5</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>

- (c) Collocated Monitor
- (e) Emergency Episode Monitor
- (I) Air Quality Index Monitor
- (t) Continuous PM Monitor

(Rev.5/23/08)

**401 KAR 50:020 Air Quality Control Region:** Appalachian Intrastate (101)

**CSA/MSA:** Middlesborough, KY Micropolitan Statistical Area

**Site Name:** Middlesboro

**AQS Site ID:** 21-013-0002

**Location:** Middlesboro Airport, Middlesboro, KY 40965

**County:** Bell

**GPS Coordinates:** 36.608056, -83.736944

**Date Established:** February 14, 1992

**Inspection Date:** December 19, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the Middlesboro Airport in Middlesboro, Kentucky. The sample inlets are 13 feet above ground level and 55 feet from the nearest road. The most recent site inspection was conducted on December 19, 2007. Upon inspection the sample lines and monitors were found to be in good condition. Even though this site is for special purpose monitoring, the site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards and to provide information on the transport of ozone into the region.

**Monitors:**

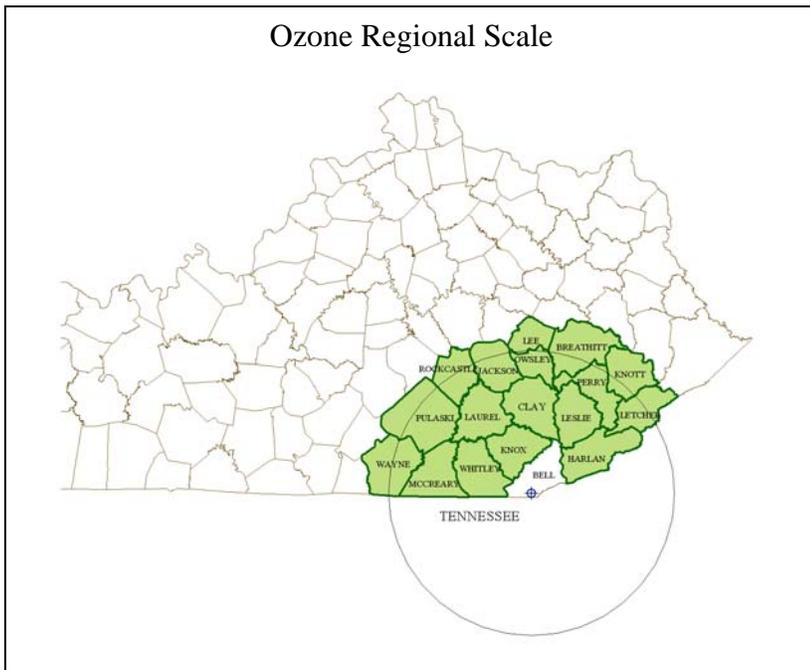
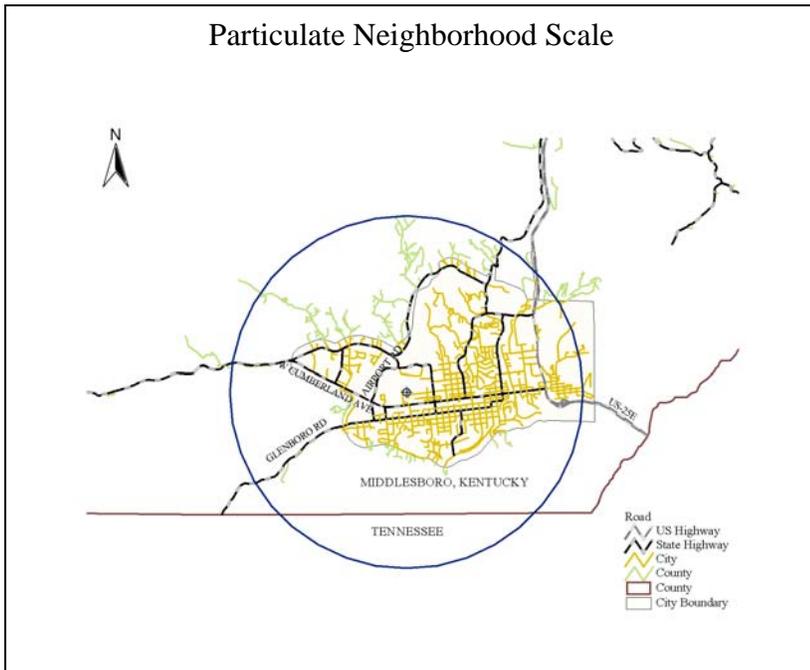
Monitor Type	Designation	Analysis Method	Frequency of Sampling
FRM PM <sub>2.5</sub>	SPM	Gravimetric	24-hours every sixth day
AEM Ozone	SPM	UV photometry	Continuously March 1-October 31
Meteorological	Other	AQM grade instruments for wind speed, wind direction, humidity, barometric pressure and temperature	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

The site represents population exposure on a neighborhood scale for particulates. This site also represents transport on a regional scale for ozone.



**401 KAR 50:020 Air Quality Control Region:** Bluegrass Intrastate (102)

**CSA/MSA:** Frankfort, KY Micropolitan Statistical Area

**Site Name:** Frankfort

**AQS Site ID:** 21-073-0006

**Location:** 803 Schenkel Lane, Frankfort, KY 40601

**County:** Franklin

**GPS Coordinates:** 38.219361, -84.838500

**Date Established:** January 1, 1999

**Inspection Date:** October 31, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is located on the roof of the Ragland Building in Frankfort, Kentucky. The sample inlets are 18 feet above ground level and 250 feet from the nearest road. The most recent site inspection was conducted on October 31, 2007. Upon inspection, the sample inlet and monitor were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards.

**Monitors:**

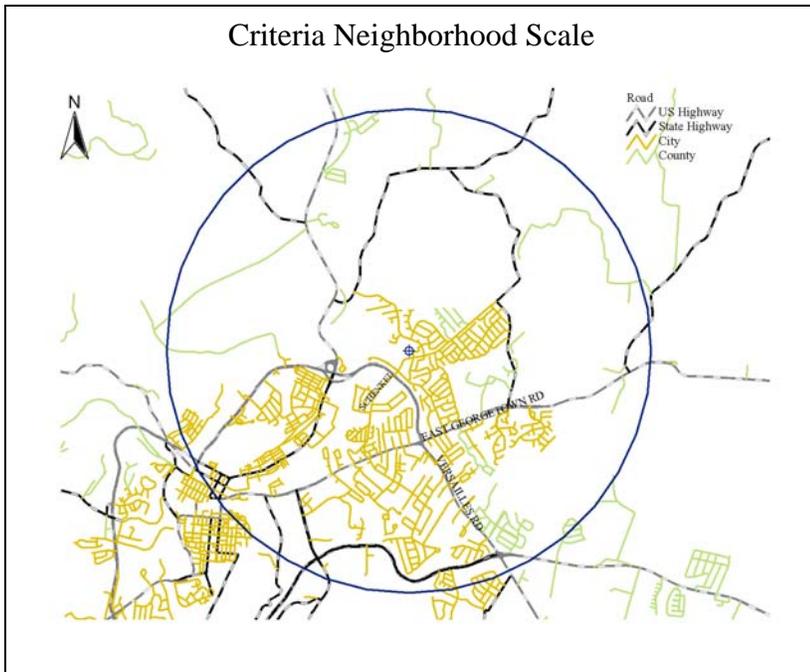
Monitor Type	Designation	Analysis Method	Frequency of Sampling
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every third day

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on a neighborhood scale.



**401 KAR 50:020 Air Quality Control Region:** Paducah – Cairo Interstate (072)  
**CSA/MSA:** Paducah-Mayfield, KY-IL CSA/ Paducah, KY-IL Micropolitan Statistical Area  
**Site Name:** Smithland  
**AQS Site ID:** 21-139-0003  
**Location:** KY DOT Garage, 811 HWY 60 East, Smithland, KY 42081  
**County:** Livingston  
**GPS Coordinates:** 37.155556, -88.393056  
**Date Established:** April 1, 1988  
**Inspection Date:** November 7, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the KY DOT Highway Garage in Smithland, Kentucky. The sample inlet is 13 feet above ground level and 1200 feet from the nearest road. The most recent site inspection was conducted on November 7, 2007. Upon inspection, the sample line and monitor were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objective is to determine compliance with National Ambient Air Quality standards.

**Monitors:**

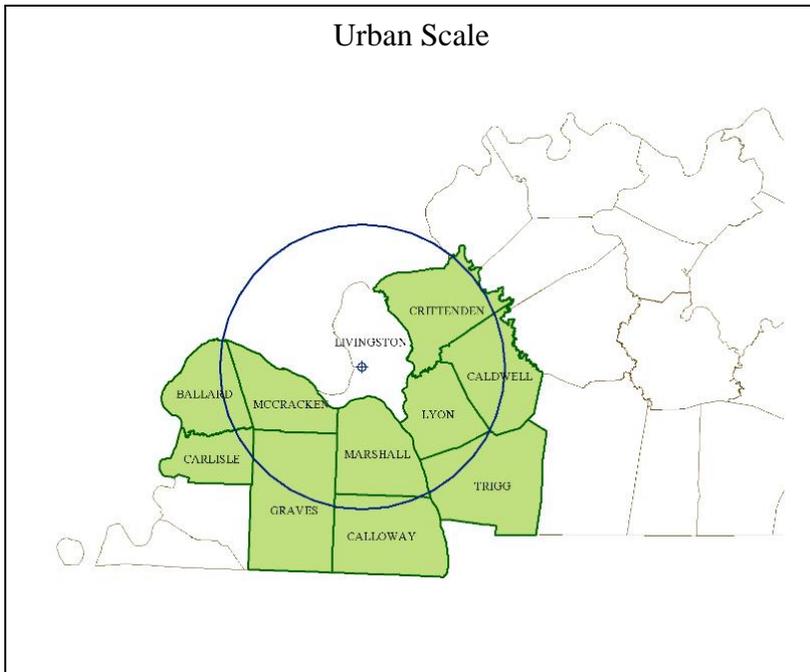
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SLAMS	UV photometry	Continuously March 1 – October 31
AEM Sulfur Dioxide	SPM	UV fluorescence	Continuously
Mercury – ambient	SPM	Cold vapour fluorescence spectrometry	Continuously
Mercury – Wet Deposition	SPM	Wet deposition collected, analysis of sample by the Environmental Services Laboratory	Weekly

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents maximum concentration on an urban scale.



**401 KAR 50:020 Air Quality Control Region:** Paducah – Cairo Interstate (072)  
**CSA/MSA:** Paducah-Mayfield, KY-IL CSA/ Paducah, KY-IL Micropolitan Statistical Area  
**Site Name:** Bloodworth  
**AQS Site ID:** 21-139-0004  
**Location:** 763 Bloodworth Road, Smithland, KY 42081  
**County:** Livingston  
**GPS Coordinates:** 37.070833, -88.334167  
**Date Established:** September 15, 1986  
**Inspection Date:** November 7, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of a residence at the end of Bloodworth Road in Smithland, Kentucky. The sample inlets are 13 feet above ground level and 1200 feet from the nearest road. The most recent site inspection was conducted on November 7, 2007. Upon inspection, the sample line and monitor were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality standards and to measure highest concentrations and source impact levels of a sub group of air toxics.

**Monitors:**

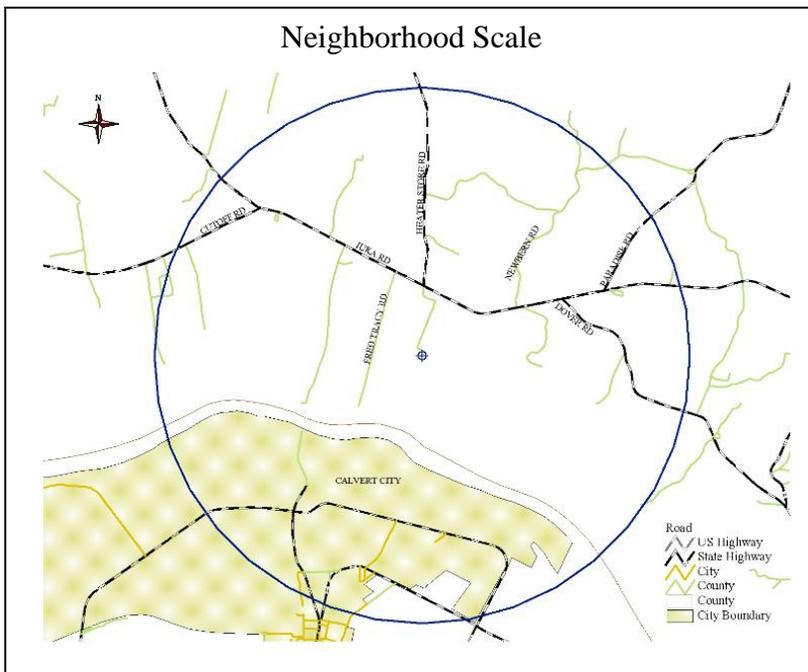
Monitor Type	Designation	Analysis Method	Frequency of Sampling
Volatile Organic Compounds	SPM	EPA method TO-15	24-hours every sixth day
Meteorological	Other	AQM grade instruments for wind speed, wind direction, humidity, barometric pressure and temperature	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents source impact on a neighborhood scale.



**401 KAR 50:020 Air Quality Control Region:** Paducah – Cairo Interstate (072)  
**CSA/MSA:** Paducah-Mayfield, KY-IL CSA/ Paducah, KY-IL Micropolitan Statistical Area  
**Site Name:** Paducah Middle School  
**AQS Site ID:** 21-145-1004  
**Location:** Paducah Middle School, 342 Lone Oak, Paducah, KY 42001  
**County:** McCracken  
**GPS Coordinates:** 37.065556, -88.637778  
**Date Established:** July 1, 1969  
**Inspection Date:** November 6, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is located on the roof of the Paducah Middle School in Paducah, Kentucky. The sample inlets are 20 feet above ground level and 110 feet from the nearest road. The most recent site inspection was conducted on November 6, 2007. Upon inspection, the sample inlets and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objective is to determine compliance with National Ambient Air Quality standards.

**Monitors:**

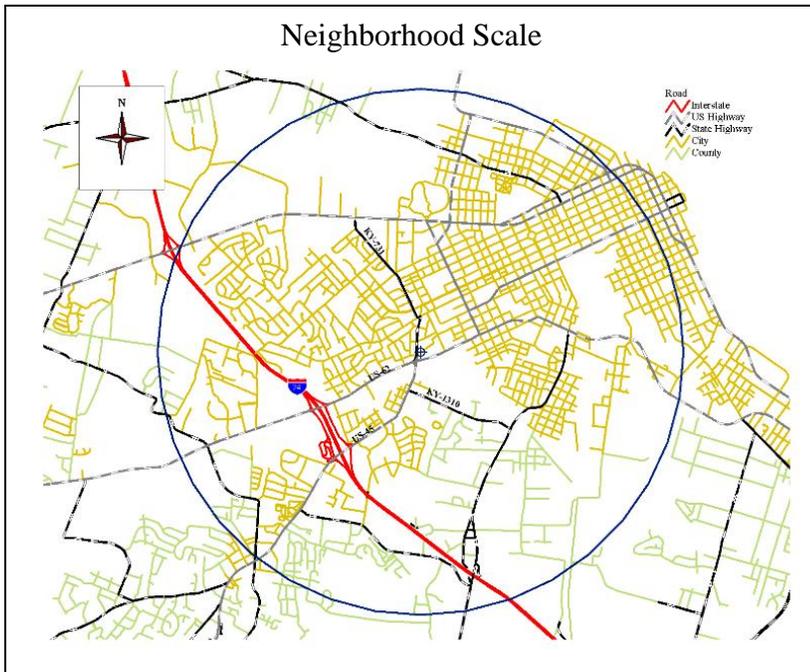
Monitor Type	Designation	Analysis Method	Frequency of Sampling
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every third day
FRM PM <sub>10</sub>	SLAMS	Gravimetric	24-hours every sixth day

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on a neighborhood scale.



**401 KAR 50:020 Air Quality Control Region:** Paducah – Cairo Interstate (072)  
**CSA/MSA:** Paducah-Mayfield, KY-IL CSA/ Paducah, KY-IL Micropolitan Statistical Area  
**Site Name:** Jackson Purchase Paducah Primary  
**AQS Site ID:** 21-145-1024  
**Location:** Jackson Purchase RECC, 2901 Powell Street, Paducah, KY 42003  
**County:** McCracken  
**GPS Coordinates:** 37.058056, -88.572500  
**Date Established:** August 15, 1980  
**Inspection Date:** November 6, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the Jackson Purchase RECC in Paducah, Kentucky. The sample inlets are 13 feet above ground level and 31 feet from the nearest road. The most recent site inspection was conducted on November 6, 2007. Upon inspection, the sample inlets and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality standards; to detect episode pollution levels of criteria pollutants for activation of emergency control procedures; and to provide levels of ozone, particulate matter and sulfur dioxide for daily index reporting.

**Monitors:**

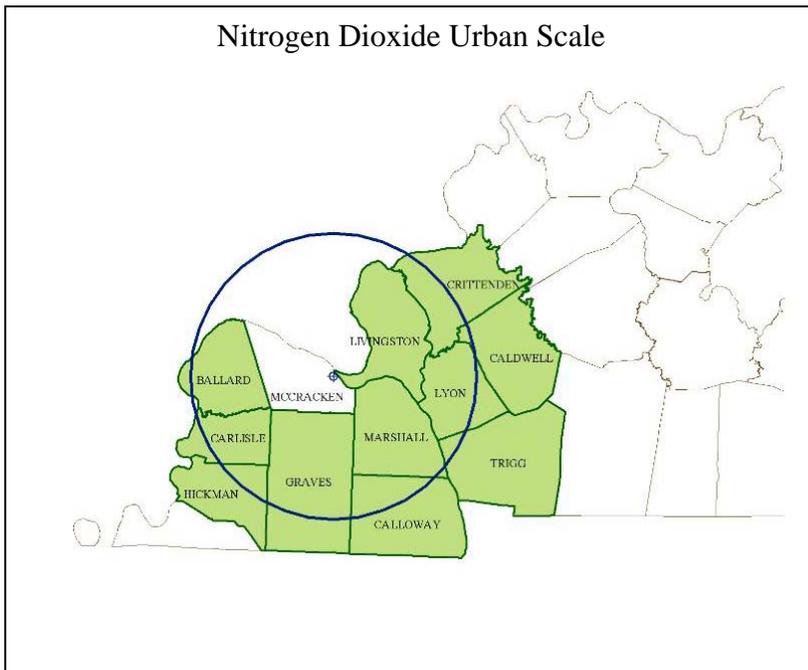
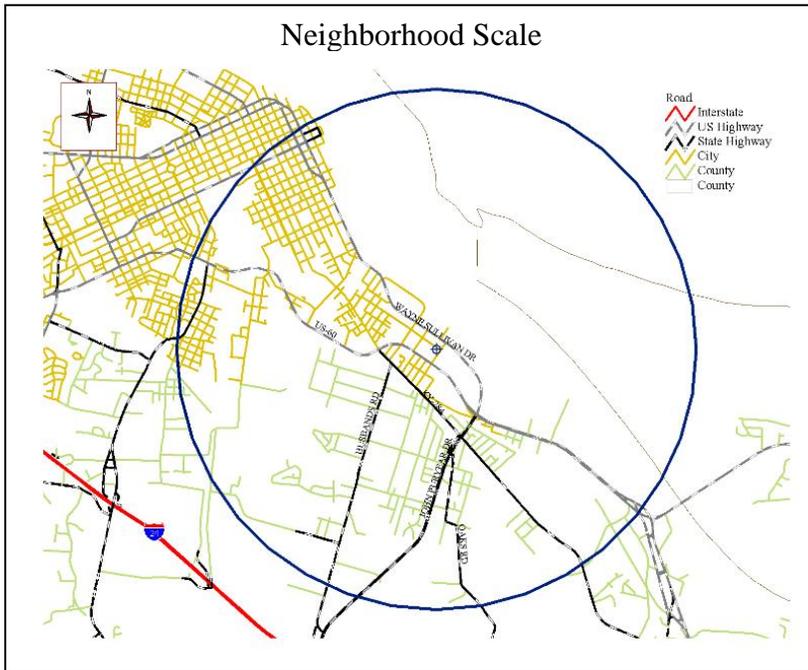
Monitor Type	Designation	Analysis Method	Frequency of Sampling
ARM Nitrogen Dioxide	SLAMS EPISODE	Chemiluminescence	Continuously
AEM Ozone	SLAMS EPISODE AQI	UV photometry	Continuously March 1 – October 31
PM <sub>2.5</sub> TEOM	SPM EPISODE AQI	Tapered element oscillating microbalance, gravimetric	Continuously
AEM Sulfur Dioxide	SLAMS EPISODE AQI	UV fluorescence	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on a neighborhood scale for ozone, particulates and sulfur dioxide. This site also represents population exposure on an urban scale for nitrogen dioxide.



**401 KAR 50:020 Air Quality Control Region:** Bluegrass Intrastate (102)  
**CSA/MSA:** Lexington-Fayette-Frankfort-Richmond, KY CSA / Richmond-Berea, KY Micropolitan Statistical Area  
**Site Name:** Richmond  
**AQS Site ID:** 21-151-0003  
**Location:** Mayfield School on Bond Street, Richmond, KY 40475  
**County:** Madison  
**GPS Coordinates:** 37.738056, -84.285556  
**Date Established:** January 1, 1999  
**Inspection Date:** October 31, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is located on the roof of the Mayfield Elementary School in Richmond, Kentucky. The sample inlet is 15 feet above ground level and 200 feet from the nearest road. The most recent site inspection was conducted on October 31, 2007. Upon inspection, the sample inlet and monitor were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objective is to determine compliance with National Ambient Air Quality Standards.

**Monitors:**

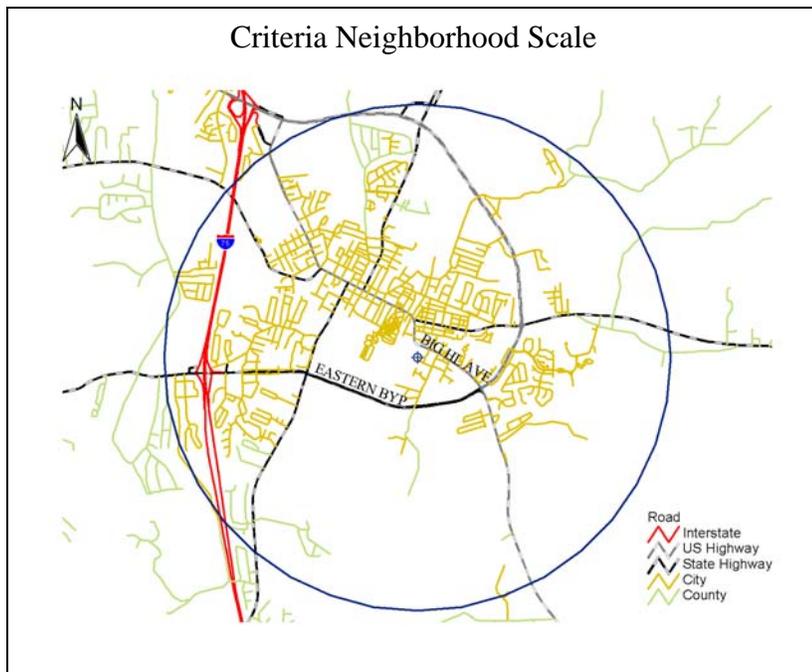
Monitor Type	Designation	Analysis Method	Frequency of Sampling
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every third day

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents population exposure on a neighborhood scale for particulates.



**401 KAR 50:020 Air Quality Control Region:** South Central Kentucky Intrastate (105)  
**CSA/MSA:** Somerset, KY Micropolitan Statistical Area  
**Site Name:** Somerset  
**AQS Site ID:** 21-199-0003  
**Location:** Somerset Gas Company, Clifty Street, Somerset, KY 42501  
**County:** Pulaski  
**GPS Coordinates:** 37.097500, -84.611667  
**Date Established:** February 14, 1992  
**Inspection Date:** December 19, 2007  
**Inspection By:** Andrea P. Keatley  
**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the Somerset Gas Company Warehouse on Clifty Street in Somerset, KY. The sample inlets are 15 feet above ground level and 35 feet from the nearest road. The most recent site inspection was conducted on December 19, 2007. Upon inspection the sample line and monitor were found to be in good condition. Even though the site is for special purpose monitoring, the site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objective is to determine compliance with National Ambient Air Quality Standards.

**Monitors:**

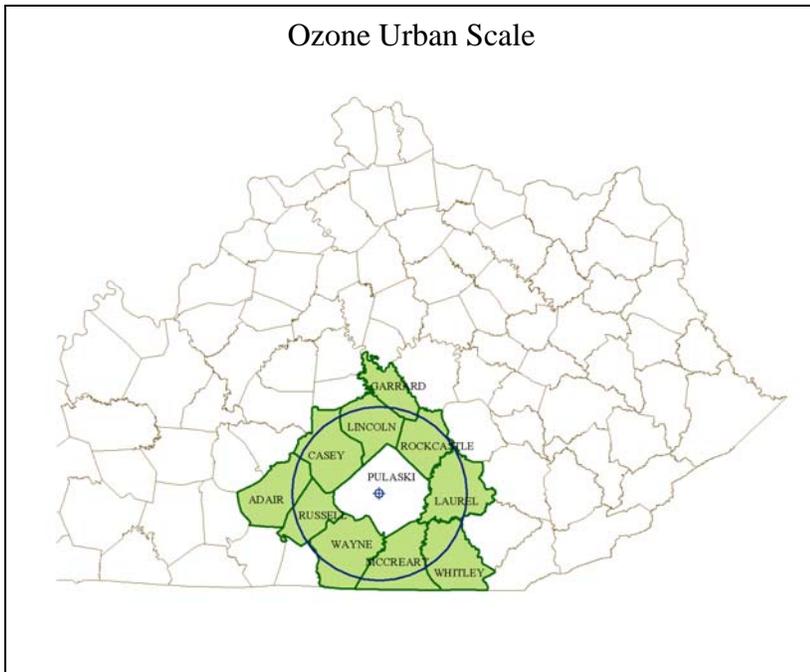
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SPM	UV photometry	Continuously March 1 – October 31

**Quality Assurance Status:**

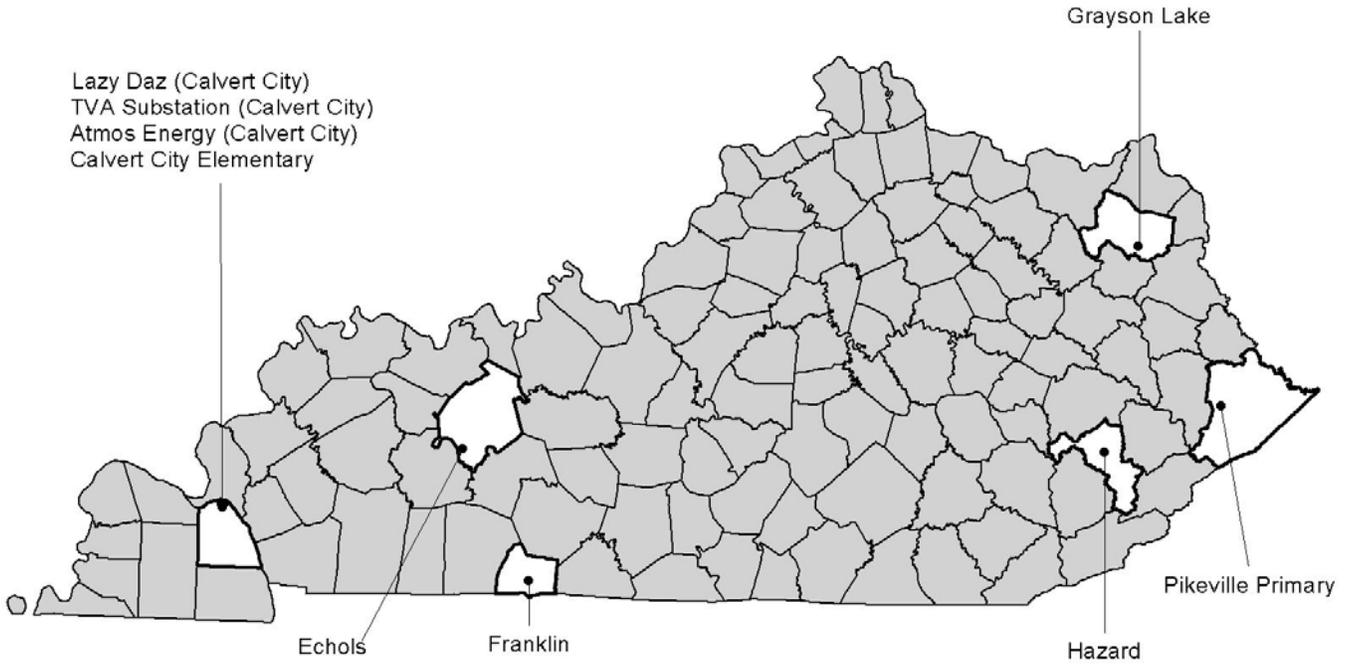
All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site also represents population exposure on an urban scale for ozone.



# Not in a MSA



AIRS ID	ADDRESS	PM2.5	PM10	SO2	NO2	CO	O3	Metals	Hg	Wet Dep.	VOC	Carbonyl	Speciation	MET
21-043-0500	Camp Webb, Grayson Lake Grayson (Carter)	X	X(c)				X(s)	X(c)	X	X HG	X	X	X	X
21-157-0014	TVA Substation Calvert City (Marshall)										X(c)			
21-157-0016	Atmos Energy Calvert City (Marshall)										X			
21-157-0018	Calvert City Elementary Calvert City (Marshall)		X(s)					X			X			X
21-157-0019	4237 Gilbertsville Hwy Calvert City (Marshall)										X			
21-183-0032	Keytown Road Echols (Ohio)	X(st)	X(s)					X	X	HG				X
21-193-0003	Perry County Horse Park Hazard (Perry)	Xt					X(s)							X
21-195-0002	101 N. Mayo Trail, DOT Office Pikeville (Pike)	X(ct)					X(s)							
21-213-0004	KY DOT Garage, KY 1008 Franklin (Simpson)						X(s)							X
<b>TOTAL</b>		<b>7</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>5</b>

- (c) Collocated Monitor
- (s) Special Purpose Monitor
- (t) Continuous PM Monitor

**401 KAR 50:020 Air Quality Control Region:** Huntington (WV)-Ashland (KY)-Portsmouth-Ironton (OH) Interstate (103)

**CSA/MSA:** Not in a MSA - Rural

**Site Name:** Grayson Lake

**AQS Site ID:** 21-043-0500

**Location:** Camp Grayson at Grayson Lake, Grayson, KY 41143

**County:** Carter

**GPS Coordinates:** 38.238333, -82.988333

**Date Established:** May 13, 1981

**Inspection Date:** October 29, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter in a fenced area located in a remote section of Camp Grayson in Grayson, Kentucky. The sample inlets are 13 feet above ground level and the nearest road is a service road. The most recent site inspection was conducted on October 29, 2007. Upon inspection, the sample lines and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

#### **Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards; to determine background levels of PM<sub>2.5</sub>; to provide ozone data upwind of the Ashland area; and to measure background levels of Mercury in ambient air and in precipitation.

#### **Monitors:**

<b>Monitor Type</b>	<b>Designation</b>	<b>Analysis Method</b>	<b>Frequency of Sampling</b>
AEM Ozone	SPM	UV photometry	Continuously March 1 – October 31
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every third day
Mercury - ambient	SPM	Cold vapour atomic fluorescence spectrometry	Continuously
Mercury - Wet Deposition	SPM	Wet deposition collected, analysis of sample by the Environmental Services Laboratory using EPA method 1631, Revision E	Weekly
Wet Deposition	SPM	Wet deposition collected, analysis of sample by the Environmental Services laboratory	Weekly
FRM PM <sub>10</sub>	SLAMS	Gravimetric	24-hours every sixth day

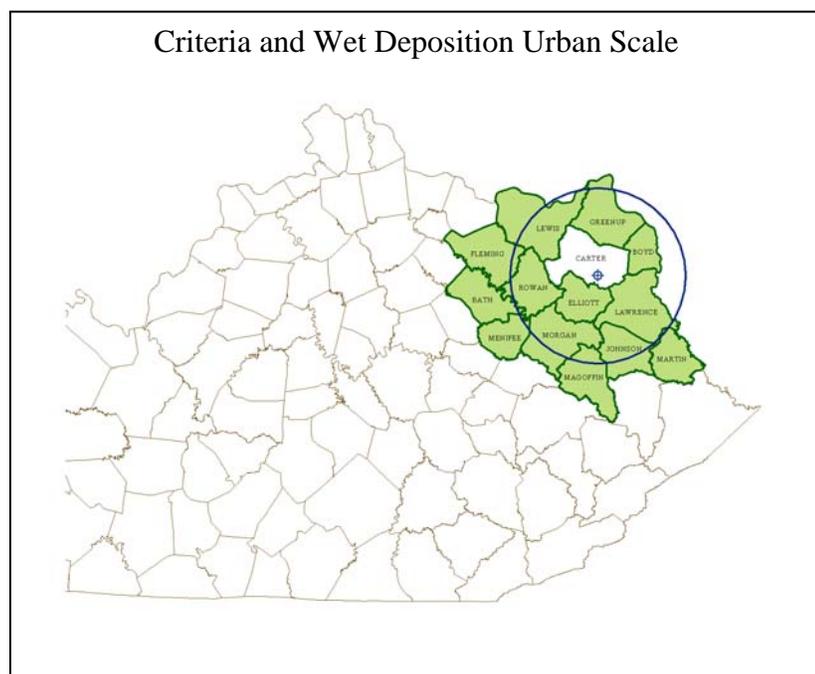
- Collocated PM <sub>10</sub>	SLAMS	Gravimetric	24-hours every sixth day
- Metals PM <sub>10</sub>	SPM	Determined from the PM <sub>10</sub> sample using EPA method IO 3.4	Same as PM <sub>10</sub>
PM <sub>2.5</sub> Speciation	SLAMS	Thermal optical, ion chromatography, and X-ray fluorescence	24-hours every sixth day
Volatile Organics Compound	SPM	EPA method TO-15	24-hours every sixth day
Carbonyls	SPM	EPA method TO-11A	24-hours every sixth day
Chrome <sub>VI</sub>	SPM	CARB method	24-hours every sixth day
Collocated Chrome <sub>VI</sub>	SPM	CARB method	24-hours every twelfth day
Meteorological	Other	AQM grade instruments for wind speed, wind direction, humidity and temperature	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

The site represents background levels on an urban scale for particulates and mercury. This site also represents upwind/background levels on an urban scale for ozone and population exposure on an urban scale for wet deposition.



**401 KAR 50:020 Air Quality Control Region:** Paducah – Cairo Interstate (072)

**CSA/MSA:** Not in a MSA - Rural

**Site Name:** TVA Calvert City

**AQS Site ID:** 21-157-0014

**Location:** Ballpark Road, Calvert City, KY 42029

**County:** Marshall

**GPS Coordinates:** 37.024200, -88.195100

**Date Established:** January 1, 2005

**Inspection Date:** November 7, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is an air toxics monitor located off Ballpark Road in Calvert City, Kentucky. The sample inlet is 2 meters above ground level. The most recent site inspection was conducted on November 7, 2007. Upon inspection, the sample inlet and monitor were found to be in good condition.

**Monitoring Objective:**

The monitoring objective is to determine if toxic air pollutants are present and to quantify them.

**Monitors:**

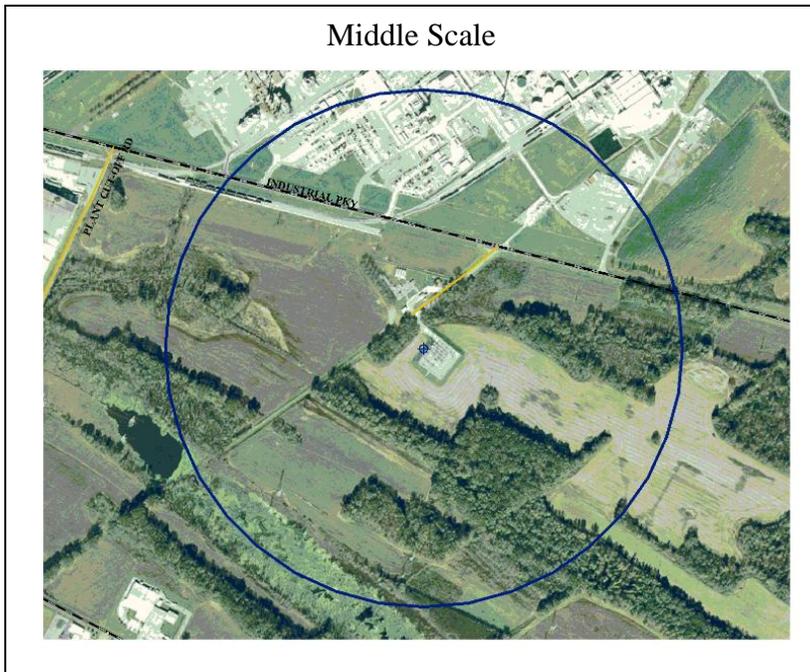
Monitor Type	Designation	Analysis Method	Frequency of Sampling
Volatile Organic Compounds	SPM	EPA method TO-15	24-hours every sixth day
-Collocated Volatile Organic Compounds	SPM	EPA method TO-15	24-hours every sixth day

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents source oriented exposure on a middle scale.



**401 KAR 50:020 Air Quality Control Region:** Paducah – Cairo Interstate (072)

**CSA/MSA:** Not in a MSA - Rural

**Site Name:** Atmos Calvert City

**AQS Site ID:** 21-157-0016

**Location:** KY95, Calvert City, KY 42029

**County:** Marshall

**GPS Coordinates:** 37.023100, -88.211500

**Date Established:** January 1, 2005

**Inspection Date:** November 7, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is an air toxics monitor located off KY95 in Calvert City, Kentucky. The sample inlet is 2 meters above ground level. The most recent site inspection was conducted on November 7, 2007. Upon inspection, the sample inlet and monitor were found to be in good condition.

**Monitoring Objective:**

The monitoring objective is to determine if toxic air pollutants are present and quantify them.

**Monitors:**

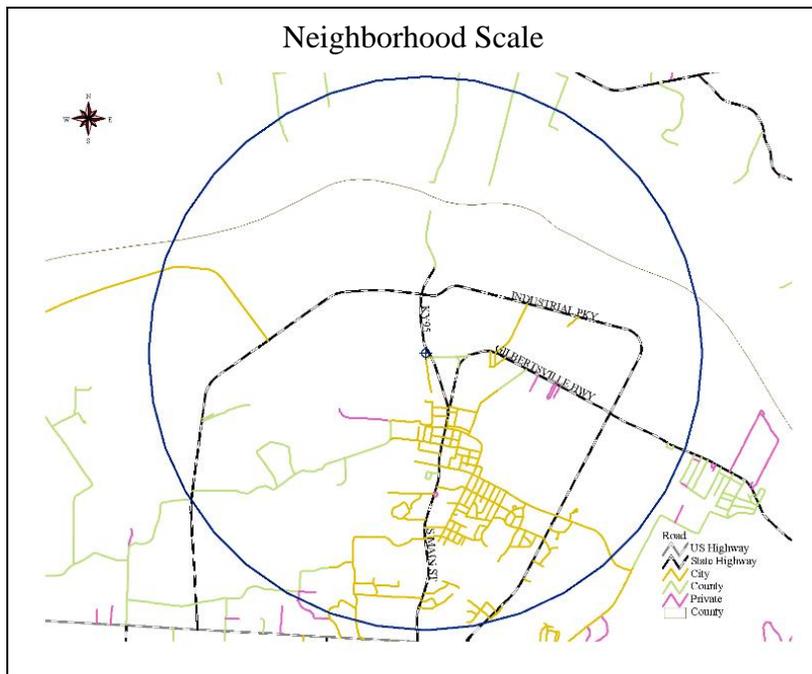
Monitor Type	Designation	Analysis Method	Frequency of Sampling
Volatile Organic Compounds	SPM	EPA method TO-15	24-hours every sixth day

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents source oriented exposure on a neighborhood scale.



**401 KAR 50:020 Air Quality Control Region:** Paducah – Cairo Interstate (072)

**CSA/MSA:** Not in a MSA - Rural

**Site Name:** Calvert City Elementary

**AQS Site ID:** 21-157-0018

**Location:** Calvert City Elementary, 623 5<sup>th</sup> Avenue, Calvert City, KY 42029

**County:** Marshall

**GPS Coordinates:** 37.026916, -88.343944

**Date Established:** May 1, 2005

**Inspection Date:** October 12, 2006

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the Calvert City Elementary in Calvert City, Kentucky. The sample inlets are 13 feet above ground level and 80 feet from the nearest road. The most recent site inspection was conducted on October 12, 2006. Upon inspection, the sample inlets and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objective is to determine if toxic air pollutants are present and quantify them and to provide meteorological data for toxics analysis.

**Monitors:**

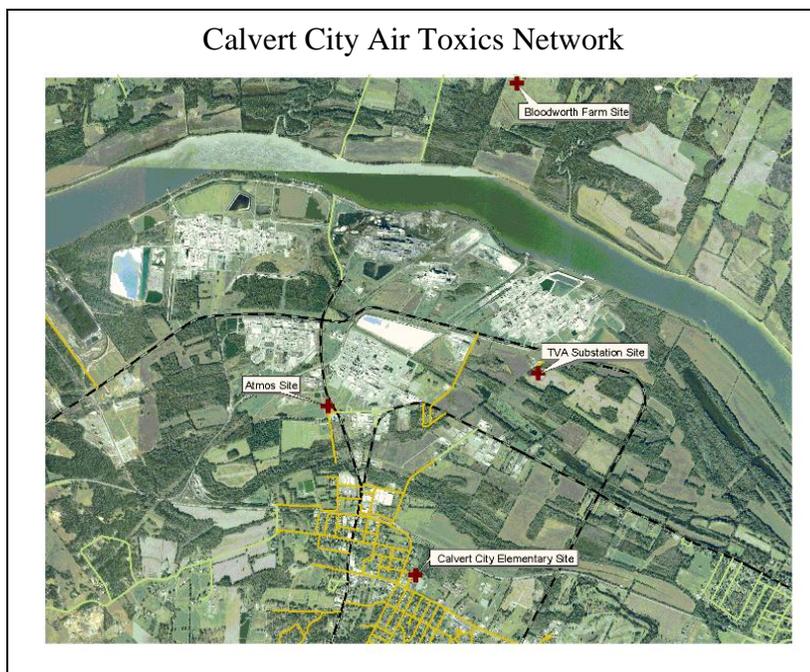
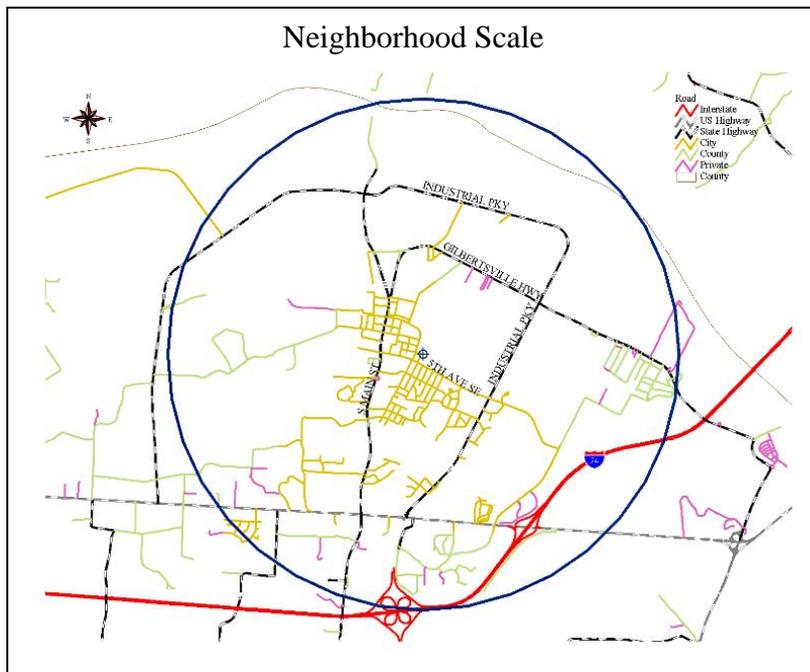
Monitor Type	Designation	Analysis Method	Frequency of Sampling
FRM PM10	SPM	Gravimetric	24-hours every sixth day
- Metals PM10	SPM	Determined from the PM10 sample using EPA method IO 3.4	Same as PM10
Volatile Organic Compounds	SPM	EPA method TO-15	24-hours every sixth day
Meteorological	Other	AQM grade instruments for wind speed, wind direction, humidity, barometric pressure and temperature	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

### Area Representativeness:

This site represents population exposure on a neighborhood scale.



**401 KAR 50:020 Air Quality Control Region:** Paducah – Cairo Interstate (072)

**CSA/MSA:** Not in a MSA - Rural

**Site Name:** Lazy Daz

**AQS Site ID:** 21-157-0019

**Location:** 4237 Gilbertsville Highway, Calvert City, KY 42029

**County:** Marshall

**GPS Coordinates:** 37.03718, -88.33411

**Date Established:** September 15, 2007

**Inspection Date:** November 7, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a solar charged, battery powered, air toxics monitor located on the Brady property, of the Lazy Daz mobile home park in Calvert City, Kentucky. The sample inlet is 2 meters above ground level. The sample probe is 154 meters from the nearest road. The most recent site inspection was conducted on November 7, 2007. Upon inspection, the sample inlet and monitor were found to be in good condition.

**Monitoring Objective:**

The monitoring objective is to determine if toxic air pollutants are present and quantify them.

**Monitors:**

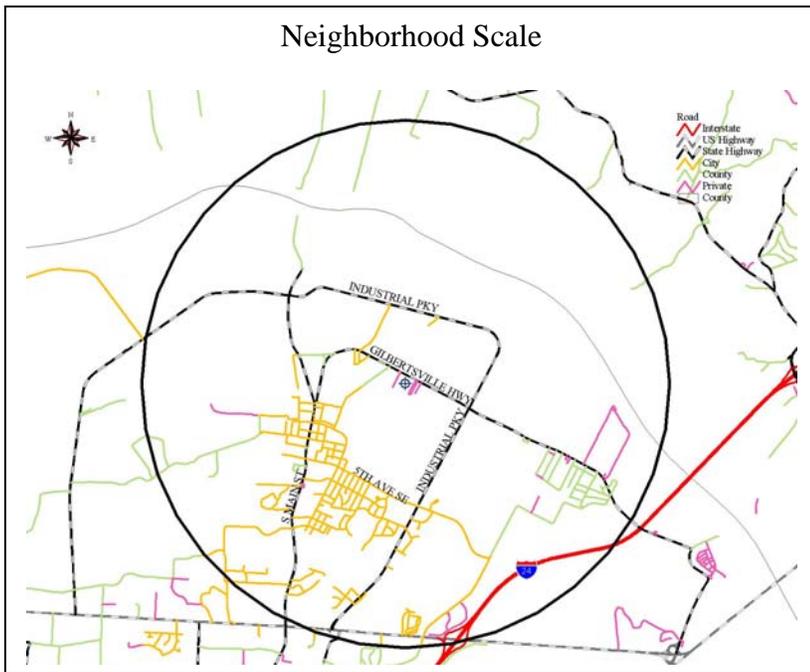
Monitor Type	Designation	Analysis Method	Frequency of Sampling
Volatile Organic Compounds	SPM	EPA method TO-15	24-hours every sixth day

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

This site represents source oriented exposure on a neighborhood scale.



**401 KAR 50:020 Air Quality Control Region:** Evansville-Owensboro-Henderson Interstate (077)

**CSA/MSA:** Not in a MSA - Rural

**Site Name:** Echols

**AQS Site ID:** 21-183-0032

**Location:** Keytown Road, Echols, KY 42320

**County:** Ohio

**GPS Coordinates:** 37.319725, -86.956097

**Date Established:** February 1, 2005

**Inspection Date:** September 19, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on farmland off Keytown Road near the intersection with Pond Church Road in Echols, Kentucky. The sample inlets are 12 feet above ground level and 100 feet from the nearest road. The most recent site inspection was conducted on September 19, 2007. Upon inspection, the sample lines and monitors were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objective is to determine compliance with National Ambient Air Quality Standards.

**Monitors:**

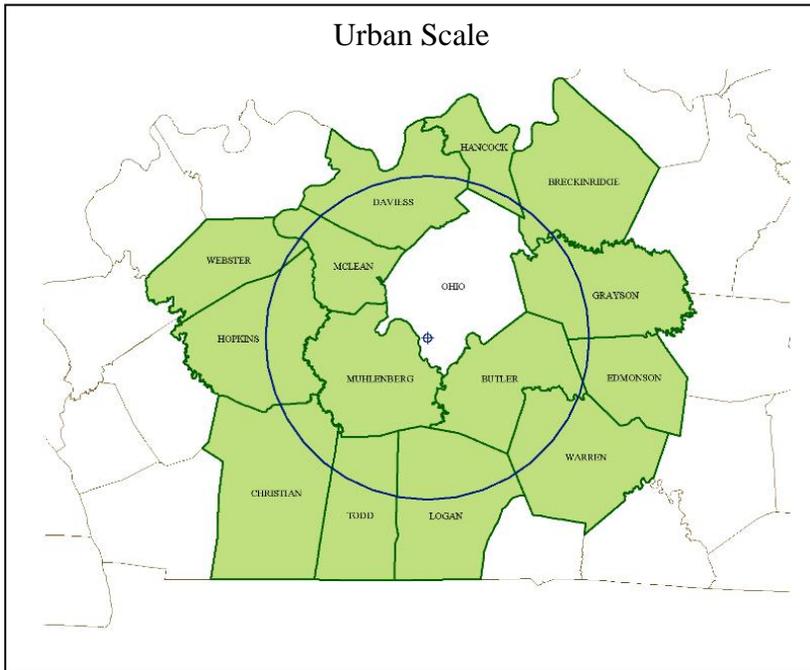
Monitor Type	Designation	Analysis Method	Frequency of Sampling
FRM PM <sub>10</sub>	SPM	Gravimetric	24-hours every sixth day
- Metals PM <sub>10</sub>	SPM	Determined from the PM <sub>10</sub> samples using EPA method IO 3.4	Same as PM <sub>10</sub>
FRM PM <sub>2.5</sub>	SPM	Gravimetric	24-hours every sixth day
PM <sub>2.5</sub> TEOM	SPM	Tapered element oscillating microbalance, gravimetric	Continuously
Mercury – ambient	SPM	Cold vapour atomic fluorescence spectrometry	Continuously
Mercury – Wet Deposition	SPM	Wet deposition collected, analysis of sample by the Environmental Services Laboratory	Weekly
Meteorological	Other	AQM grade instruments for wind speed, wind direction, humidity, barometric pressure, rain gauge and temperature	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A for the FRM PM<sub>2.5</sub> and PM<sub>10</sub> monitors.

**Area Representativeness:**

This site represents source oriented exposure on an urban scale.



**401 KAR 50:020 Air Quality Control Region:** Appalachian Intrastate (101)

**CSA/MSA:** Not in a MSA – Rural

**Site Name:** Hazard

**AQS Site ID:** 21-193-0003

**Location:** Perry County Horse Park, Hazard, KY 41701

**County:** Perry

**GPS Coordinates:** 37.283056, -83.220278

**Date Established:** April 1, 2000

**Inspection Date:** October 11, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the Perry County Horse Park in Hazard, Kentucky. The sample inlets are 15 feet above ground level and 65 feet from the nearest road. The most recent site inspection was conducted on October 11, 2007. Upon inspection the sample lines and monitors were found to be in good condition. This site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards; to detect elevated pollutant levels for activation of emergency control procedures for ozone; and to measure rural concentrations of a sub-group of air toxics for use in national assessment.

**Monitors:**

Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SPM EPISODE	UV photometry	Continuously March 1 – October 31
PM <sub>2.5</sub> TEOM	SPM AQI	Tapered element oscillating microbalance, gravimetric	Continuously
Meteorological	Other	AQM grade instruments for wind speed, wind direction, humidity, barometric pressure and temperature	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.



**401 KAR 50:020 Air Quality Control Region:** Appalachian Intrastate (101)

**CSA/MSA:** Not in a MSA - Rural

**Site Name:** Pikeville Primary

**AQS Site ID:** 21-195-0002

**Location:** DOT District Office, 101 North Mayo Trail, Pikeville, KY 41501

**County:** Pike

**GPS Coordinates:** 37.482778, -82.535278

**Date Established:** May1, 1994

**Inspection Date:** October 11, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located behind the DOT District Office building at 101 North Mayo Trail in Pikeville, KY. The sample inlets are 12 feet above ground level and 116 feet from the nearest road. The most recent site inspection was conducted on October 11, 2007. Upon inspection the sample lines and monitors were found to be in good condition. This site meets the requirements of 40 CFR 58, Appendices C, D, E and G.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards; to detect elevated pollutant levels for activation of emergency control procedures for particulates; and to provide pollutant levels for daily air quality index reporting.

**Monitors:**

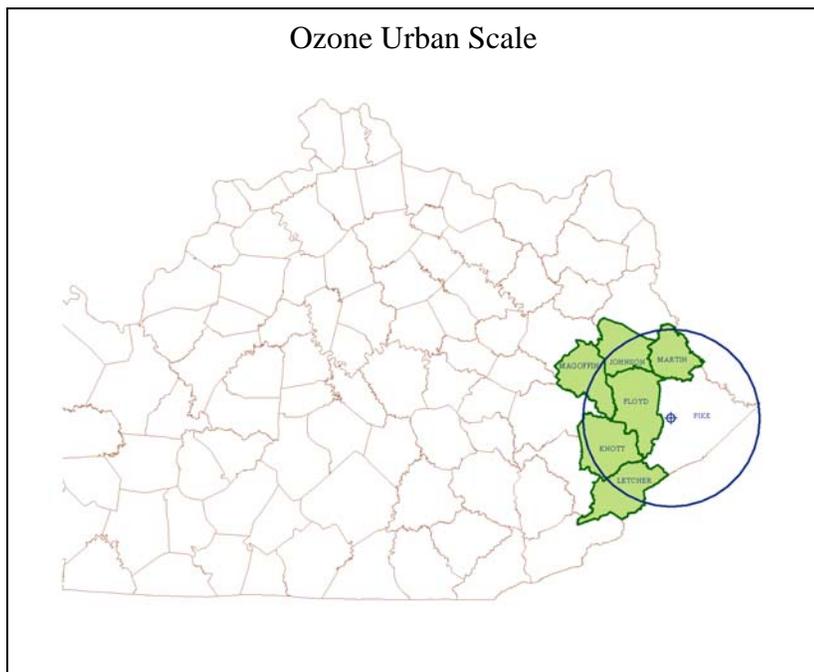
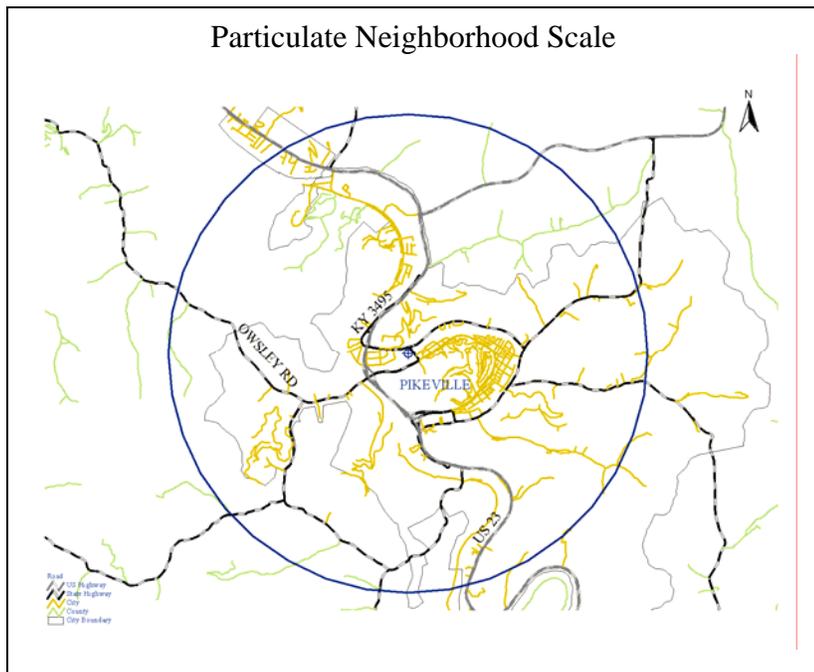
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SPM AQI	UV photometry	Continuously March 1 – October 31
FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every sixth day
- Collocated FRM PM <sub>2.5</sub>	SLAMS	Gravimetric	24-hours every twelfth day
PM <sub>2.5</sub> TEOM	SPM AQI	Tapered element oscillating microbalance, gravimetric	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

**Area Representativeness:**

The site represents population exposure on a neighborhood scale for particulates. This site also represents population exposure on an urban scale for ozone.



**401 KAR 50:020 Air Quality Control Region:** South Central Kentucky Intrastate (105)

**CSA/MSA:** Not in a MSA - Rural

**Site Name:** Franklin

**AQS Site ID:** 21-213-0004

**Location:** DOT Garage, KY 1008, Franklin, KY 42134

**County:** Simpson

**GPS Coordinates:** 38.219361, -84.838500

**Date Established:** June 19, 1991

**Inspection Date:** November 16, 2007

**Inspection By:** Andrea P. Keatley

**Site Approval Status:** Site and monitors meet all design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of the DOT Garage on KY1008 in Franklin, Kentucky. The sample inlets are 13 feet above ground level and 200 feet from the nearest road. The most recent site inspection was conducted on November 16, 2007. Upon inspection, the sample line and monitor were found to be in good condition. The site meets the requirements of 40 CFR 58, Appendices C, D and E.

**Monitoring Objective:**

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards; to measure ozone levels upwind of Bowling Green; and to provide data on interstate ozone transport.

**Monitors:**

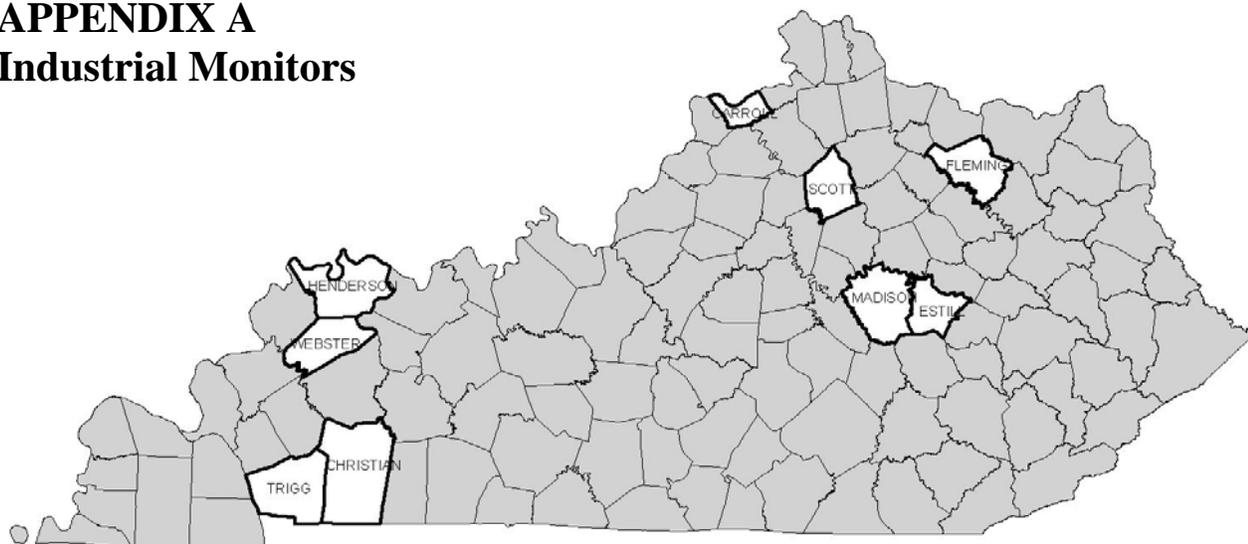
Monitor Type	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	SPM	UV photometry	Continuously March 1 – October 31
Meteorological	Other	AQM grade instruments for wind speed, wind direction, humidity, barometric pressure and temperature	Continuously

**Quality Assurance Status:**

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.



## APPENDIX A Industrial Monitors



AIRS ID	ADDRESS	PM <sub>2.5</sub>	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>2</sub>	CO	O <sub>3</sub>
21-041-0004 <sup>5</sup>	US 42 Ghent (Carroll)		X (collocated)		X		
21-041-0005 <sup>5</sup>	US 42 Ghent (Carroll)		X				
21-047-0006 <sup>1</sup>	10800 Pilot Rock Road Hopkinsville (Christian)						X
21-069-9001 <sup>6</sup>	455 Industrial Drive Flemingsburg (Fleming)						X
21-101-1010 <sup>2</sup>	US 41 & KY 2096 Sebree (Henderson)			X			
21-101-1011 <sup>2</sup>	KY 2097 Sebree (Henderson)			X			
21-209-0002 <sup>3</sup>	4673 Muddy Ford Road Scott County						X
21-221-8001 <sup>1</sup>	Cadiz LBL (Trigg)						X
21-233-0002 <sup>2</sup>	Bell Gibson Road Webster County			X			
54-099-0003 <sup>4</sup>	Spring Brook Drive Kenova (Wayne, WV)			X	X		X
54-099-0004 <sup>4</sup>	Route 52 Neal (Wayne, WV)			X			
54-099-0005 <sup>4</sup>	Big Sandy Road Neal (Wayne, WV)			X			
<b>TOTAL</b>		0	2	6	2	0	5

<sup>1</sup> – TVA

<sup>2</sup> – Western Kentucky Electric  
(Rev. 4/23/07)

<sup>3</sup> – Toyota

<sup>4</sup> – Marathon-Ashland Petroleum

<sup>5</sup> – North American Stainless

<sup>6</sup> – East Kentucky Power

(Rev. 6/30/08)

## **APPENDIX B**

### **West Jefferson County Air Toxics Monitoring Stations Volatile Organics**

<b>AIRS ID</b>	<b>Established</b>	<b>Method</b>	<b>Location</b>	<b>Purpose</b>
21-111-1041	1999	TO-15	4201 Algonquin Parkway	Maximum Impact
21-111-0054	1999	TO-15	4211 Campground Road	Maximum Impact
21-111-0057	1999	TO-15	U of L Shelby Campus	Urban Control Site
21-111-0058	1999	TO-15	Farnsley Middle School 3400 Lees Lane	Neighborhood Exposure
21-111-0060	1999	TO-15	Chickasaw Park	Neighborhood Exposure
21-111-0062	1999	TO-15	Cane Run Elementary	Neighborhood Exposure

