

Kentucky Air Quality Surveillance Network 2005



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

INTRODUCTION

The State Division for Air Quality has operated an air quality-monitoring network in the Commonwealth since July 1967. The Louisville Metro Air Pollution Control District, a local agency, has maintained a subnetwork in its area of jurisdiction since January 1956. Since that time the networks have been expanded in accordance with the U. S. Environmental Protection Agency's regulations to reflect the current overall network of 44 stations, which monitor the major pollutants including those for which national ambient air quality standards have been issued.

In October 1975, the U. S. EPA established a work group to critically review and evaluate then current air monitoring activities. This group was named the Standing Air Monitoring Working Group (SAMWG). The SAMWG review indicated several areas where deficiencies existed which needed correction. The principal areas needing correction were: there were more monitoring sites than needed 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 and there existed a lack of uniformity in station location and probe siting, sampling methodology, quality assurance practices, and data handling procedures which resulted in data of unknown quality.

In August 1978, recommendations developed by SAMWG to remedy the deficiencies in the existing monitoring activities were combined with the requirements of a new Section 319 of the Clean Air Act and included in a proposed revision to the Regulations. 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 nationwide which utilizes uniform monitoring criteria and provides for monitoring stations in major urban areas that supplement State monitoring.

In May 1979 the new regulations were finalized by the Federal Environmental Protection Agency requiring certain modifications and additions 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. Regulations provide for an annual review of the monitoring network to insure objectives are being met and to identify needed modification. Finally, the Air Quality Surveillance Plan content provides for having a SLAMS network description available for public inspection and submission to the U.S. Environmental Protection Agency upon request.

The SLAMS network description as provided for in 40 CFR Part 58 must contain the following information for each monitoring station in the network:

1. The Aerometric Information Retrieval System (AIRS) site identification form for existing stations.
2. The proposed location for scheduled stations.
3. The sampling and analysis method used by each monitor.

4. The operating schedule for each monitor.
5. The monitoring objective and spatial scale of representativeness for each monitor.

The document which follows constitutes the Kentucky SLAMS 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 stations and location.
- (3) **SLAMS Station Description:** Each SLAMS 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.

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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, a 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.

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

1. 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: 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: 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. The Division for Air Quality, however, is providing this service to the general public from all areas where monitoring and attending staff are available. The Air Quality Index is a method of reporting that converts concentration levels of pollution to a simple number on a scale of 0-500. Intervals on the Air Quality Index scale are related to potential health effects of the daily measured concentrations of the major pollutants. The Division for Air Quality 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 providing the monitors and stations conform to all requirements of the SLAMS network.

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 Description**

Specific information is provided to show the location of the monitoring equipment at the site and to indicate that monitors and monitor probes conform to the siting criteria.

4. **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 (PM₁₀)

All PM₁₀ samplers operated by the Division for Air Quality are certified as either FRM or FEM samplers and are operated per the requirements set forth in 40 CFR 50. 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 24 hours at 20-23 degrees C mean temperature and 30-40 % mean humidity.

Continuous PM₁₀ samplers provide 24-hour samples daily for Air Quality Index and SLAMS reporting. All samplers are certified as either FRM or FEM. 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 flowrate. Data is transmitted by telemetry for entry into the automated central data acquisition system.

(b) Particulate Matter 2.5 microns in size (PM_{2.5})

All PM_{2.5} samplers operated by the Division for Air Quality are certified as either FRM or FEM samplers. All 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. Airflow through the filter is to be maintained at 16.7 liters per minute. The flowrate 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 96 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 24 hours at a controlled atmosphere of 20-23 degrees C mean temperature and 30-40% mean 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 ($\mu\text{g}/\text{m}^3$).

(c) PM_{2.5} Speciation sampling and analysis

In addition to operating PM_{2.5} samplers that determine only PM_{2.5} mass values, the Division also operates PM_{2.5} speciation samplers that collect samples that are analyzed to determine the chemical makeup of PM_{2.5}. 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 method. 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 fed to the instruments, which are adjusted so that instrument output corresponds with the specific concentrations. Calibration curves are prepared for each instrument and each datapoint 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 NBS or NBS 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 method. 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 method is 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 NBS certified gas mixtures of nitric oxide. Through the use of dilution apparatus, varying concentrations are produced which are fed 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 particulate collected by high volume particulate samplers. Particulate samples are ashed to

remove organic matter and acid extracted to dissolve the metals. Analysis of the lead content is determined by the atomic absorption spectroscopy method.

5. 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) Micro Scale - 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 objectives of the station. There are four basic objectives 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:

Monitoring Objectives
Highest concentration

Siting Area Scale
Micro, middle, neighborhood

Population	Neighborhood, urban
Source impact	Micro, middle, neighborhood
General/background	Neighborhood, regional

6. 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 non-urban 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 diffusion models.

7. 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, resited at the present location.

8. 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 every air monitor quarterly including those operated by the Louisville Metro Air Pollution Control District to ensure that each instrument is in calibration and operating properly. Data validation is performed monthly by verifying the data reported by each instrument is recorded accurately in the computerized database.

9. Data Processing and Reporting

All ambient air quality data are stored in a centralized computer located at the Division for Air Quality headquarters in Frankfort. After each month of data has passed all quality assurance checks it is transmitted via telemetry to the U.S. EPA's national data storage system known as AIRS (Aerometric Information Retrieval System). Statistical data summaries are generated from this database and compiled to produce Ambient Air Quality

Annual Reports. These reports may be accessed at the Division for Air Quality website: <http://www.air.ky.gov>. The report is located under **Public Information**.

**AIR QUALITY SURVEILLANCE NETWORK
AIR MONITORING STATIONS SUMMARY**

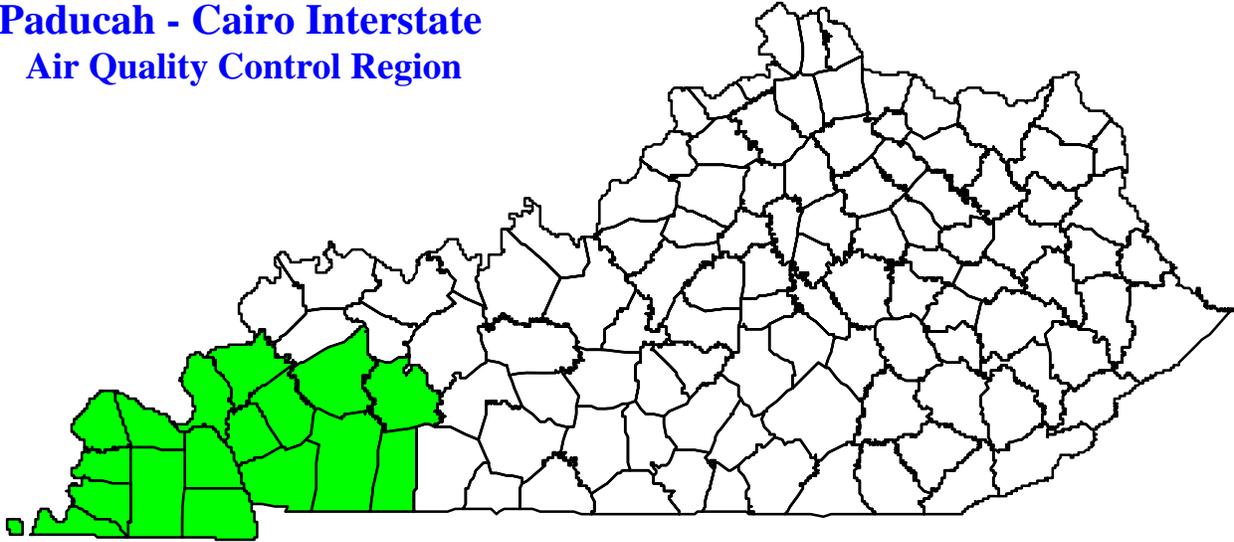
REGION	NUMBER							
	OF SITES	PM _{2.5}	PM ₁₀	SO ₂	NO ₂	CO	O ₃	MET
Paducah-Cairo (072)	6	2	2	2	1	0	2	2
Owensboro-Henderson (077)	5	3	2	3	1	0	5	3
Louisville (078)	9	5	2	2	1	2	3	1
Northern Kentucky (079)	3	2	1	2	1	0	3	2
Appalachian (101)	4	4	4	0	0	0	3	2
Bluegrass (102)	6	4	2	1	1	0	3	1
Ashland-Huntington (103)	4	2	1	2	1	0	3	2
North Central (104)	3	2	2	0	1	0	3	1
South Central (105)	4	1	2	1	1	0	3	1
TOTALS	44	25	18	13	8	2	28	15
SLAMS (NAMS)	37	19	14 (2)	9 (1)	6	2 (1)	17 (3)	0
Special Purpose Monitor	7	6	4	4	2	0	11	15

SLAMS - State and Local Air Monitoring Stations (SLAMS) are located in all areas where the state and the U.S. EPA Regional Office decide that monitoring is necessary to determine compliance with National Ambient Air Quality standards.

NAMS - Within the SLAMS network certain monitors are designated as National Air Monitoring Stations (NAMS) to provide the U.S. EPA with data for use in national trends analysis. The number of NAMS monitors appears in parenthesis next to the SLAMS totals.

SPM - Special Purpose Monitors are oriented toward localized problems, occasionally prompted by citizen complaints and do not represent overall air quality in cities or counties. Data from these monitors should not be used for planning purposes.

**Paducah - Cairo Interstate
Air Quality Control Region**



**AIR QUALITY SURVEILLANCE NETWORK
PADUCAH-CAIRO INTERSTATE REGION (072)**

AIRS ID	ADDRESS	PM_{2.5}	PM₁₀	SO₂	NO₂	CO	O₃	MET
21-047-0006	10800 Pilot Rock Road Hopkinsville (Christian)	X						
21-139-0003	DOT Garage, 811 Hwy 60 East Smithland (Livingston)						X	
21-139-0004	Bloodworth Farm, off KY 453 Livingston County			X				X
21-145-1004	Middle School, 342 Lone Oak Rd Paducah (McCracken)	X(a)	X					
21-145-1024	J-P RECC, 2901 Powell Street Paducah (McCracken)		X(e) (I)	X(e) (I)	X(e)		X(e) (I)	
21-157-0018	Calvert City Elementary School Calvert City (Marshall)							X
TOTAL		2	2	2	1	0	2	2

- (a) Speciation sampler included
- (c) Collocated Monitor
- (e) Emergency Episode Monitor
- (I) Air Quality Index Monitor
- (s) Special Purpose Monitor

(Rev. 1/11/05)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Hopkinsville (City)	Christian (County)	10800 Pilot Rock Road (Address)
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EPA SITE NO: 21-047-0006

REGION: (072) Paducah-Cairo Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4084.919 **EASTING** 471.172

DESIGNATION: SLAMS - State and Local Air Monitoring Station

DATE ESTABLISHED: January 1, 1999

SITE DESCRIPTION:

The monitoring site is on a platform in a field adjacent to a residence. The sample inlet is 10 feet above ground level and 300 feet from the nearest street.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS PM_{2.5} particulate sampler operates for 24 hours every third day. Particulates are determined gravimetrically.

AREA REPRESENTATIVENESS:

The site represents population exposure on a regional scale.

MONITORING OBJECTIVES:

To determine levels of interstate transport of fine particulate matter. To judge compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 3/12/99)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Smithland
(City)

Livingston
(County)

KY DOT Garage, 811 HWY 60 East
(Address)

EPA SITE NO: 21-139-0003

REGION: (072) Paducah-Cairo Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4112.835 **EASTING** 376.310

DESIGNATION: SLAMS - State and Local Air Monitoring Station

DATE ESTABLISHED: April 1, 1981

SITE DESCRIPTION:

The monitoring site is a trailer located on the grounds of the DOT Highway Garage. The sample inlet is 13 feet above ground level and 1200 feet from the nearest street.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS ozone analyzer operates continuously using the UV photometric method of analysis.

AREA REPRESENTATIVENESS:

The site represents maximum concentrations on an urban scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 12/10/01)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Livingston County (City)	Livingston (County)	Bloodworth Road, off KY 453 (Address)
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EPA SITE NO: 21-139-0004

REGION: (072) Paducah-Cairo Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4103.359 **EASTING** 381.395

DESIGNATION: SLAMS - State and Local Air Monitoring Station

DATE ESTABLISHED: September 15, 1986

SITE DESCRIPTION:

The monitoring site is a trailer located in a field at the end of Bloodworth Road. The sample inlets are 13 feet above ground level and 1200 feet from the nearest street.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS sulfur dioxide analyzer operates continuously using the UV fluorescent method of analysis.

AREA REPRESENTATIVENESS:

The site represents maximum concentrations on a neighborhood scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 9/8/00)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Paducah
(City)

McCracken
(County)

Paducah Middle Sch, 342 Lone Oak
(Address)

EPA SITE NO: 21-145-1004

REGION: (072) Paducah-Cairo Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4103.196 **EASTING** 354.393

DESIGNATION: SLAMS - State and Local Air Monitoring Station

DATE ESTABLISHED: July 1, 1969

SITE DESCRIPTION:

The monitoring site is on the roof of the school. The sample inlets are 20 feet above ground level and 110 feet from the nearest street.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS PM_{2.5} particulate sampler operates for 24 hours every third day. A PM_{2.5} speciation sampler and a SLAMS PM₁₀ particulate sampler operate for 24 hours every sixth day. Particulates are determined gravimetrically.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 12/10/01)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Paducah (City)	McCracken (County)	Jackson Purchase RECC, 2901 Powell Street (Address)
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EPA SITE NO: 21-145-1024

REGION: (072) Paducah-Cairo Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4102.275 **EASTING** 360.190

DESIGNATION: SLAMS - State and Local Air Monitoring Station
EPISODE - Emergency Episode Monitoring site
AQI - Air Quality Index site

DATE ESTABLISHED: August 15, 1980

SITE DESCRIPTION:

The monitoring site is a trailer located in an open area at the back of the Jackson Purchase RECC. The sample inlets are 13 feet above ground level and 31 feet from the nearest street.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A continuously operating TEOM PM₁₀ sampler provides 24-hour sample values for SLAMS and daily index reporting. SLAMS ozone and sulfur dioxide monitors operate continuously using the UV photometric and UV fluorescent methods of analysis respectively. A SLAMS nitrogen dioxide monitor operates continuously using the chemiluminescence method of analysis.

AREA REPRESENTATIVENESS:

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

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards. To detect episode pollution levels for the activation of emergency control procedures. To provide pollution levels for daily index reporting.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 12/10/01)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Calvert City (City)	Marshall (County)	Calvert City Elementary Sch, 623 5 th Ave (Address)
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EPA SITE NO: 21-157-0018

REGION: (072) Paducah-Cairo Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4098.457 **EASTING** 380.410

DESIGNATION: SPM - Special Purpose Monitor

DATE ESTABLISHED: May 1, 2005

SITE DESCRIPTION:

The site is located in a mobile shelter located behind the Calvert City Elementary School. The sample inlets are thirteen feet above ground level and 80 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

Special purpose air toxics and metals samplers operate for 24-hours every sixth day. Samples are shipped to the Environmental Services Laboratory in Frankfort for analysis. A continuously operating meteorological monitor provides data for use in toxics analysis.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To determine if toxic air pollutants are present and quantify them. To provide meteorological data for toxics analysis.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 2/21/05)

**Evansville - Henderson Interstate
Air Quality Control Region**



**AIR QUALITY SURVEILLANCE NETWORK
EVANSVILLE-HENDERSON INTERSTATE REGION (077)**

AIRS ID	ADDRESS	PM_{2.5}	PM₁₀	SO₂	NO₂	CO	O₃	MET
21-059-0005	716 Pleasant Valley Road Owensboro (Daviss)	X(a)	X(e) (I)	X(e) (I)	X(e)		X(e) (I)	X
21-091-0012	Lewisport Elementary School Lewisport (Hancock)						X	
21-101-0014	Baskett Fire Department Baskett (Henderson)	X(c)	X(s)	X			X(s)	
21-149-0001	3962 KY 815, Tichenor Farm Guffie (McLean)						X(s)	X
21-183-0032	Keytown Road Echols (Ohio)	X(s)		X(s)			X(s)	X
TOTAL		3	2	3	1	0	5	3

- (a) Speciation sampler included
- (c) Collocated Monitor
- (e) Emergency Episode Monitor
- (I) Air Quality Index Monitor
- (s) Special Purpose Monitor

(Rev. 1/11/05)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Owensboro (City)	Daviess (County)	716 Pleasant Valley Road (Address)
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EPA SITE NO: 21-059-0005

REGION: (077) Evansville-Henderson Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4181.775 **EASTING** 493.235

DESIGNATION: SLAMS - State and Local Air Monitoring Station
EPISODE - Emergency episode monitoring site
AQI - Air Quality Index site

DATE ESTABLISHED: December 1, 1970

SITE DESCRIPTION:

The site is located in a mobile trailer at the rear of the Wyndall's Shopping Center. The sample inlets are 13 feet above ground level and 200 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

SLAMS ozone and sulfur dioxide monitors operate continuously using the UV photometric and UV fluorescent methods respectively. A SLAMS nitrogen dioxide monitor operates continuously using the chemiluminescence method. A SLAMS PM_{2.5} sampler operates for 24 hours every third day. A continuously operating TEOM PM₁₀ particulate sampler provides 24-hour sample values for both daily index and SLAMS reporting.

AREA REPRESENTATIVENESS:

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

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards. To detect emergency pollution levels for activation of emergency control procedures. To provide pollution levels for daily index reporting.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 4/8/05)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Lewisport
(City)

Hancock
(County)

Lewisport Elementary School
(Address)

EPA SITE NO: 21-091-0012

REGION: (077) Evansville-Henderson Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4198.815 **EASTING** 509.055

DESIGNATION: SLAMS - State and Local Air Monitoring Station

DATE ESTABLISHED: September 5, 1980

SITE DESCRIPTION:

The site is a mobile trailer located at the rear of the school. The sample inlet is eleven feet above ground and 175 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS ozone monitor operates continuously using the UV photometric method of analysis.

AREA REPRESENTATIVENESS:

The site represents maximum concentrations on an urban scale for ozone.

MONITORING OBJECTIVES:

To judge compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 1/118/05)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Baskett (City)	Henderson (County)	Baskett Fire Department (Address)
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EPA SITE NO: 21-101-0014

REGION: (077) Evansville-Henderson Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4191.410 **EASTING** 459.255

DESIGNATION: SLAMS - State and Local Air Monitor (PM_{2.5})
SPM - Special Purpose Monitor

DATE ESTABLISHED: February 27, 1992

SITE DESCRIPTION:

The monitoring site is a trailer located in front of the Baskett Fire Department. The sample inlets are 13 feet above ground level and 25 feet from the nearest street.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A special purpose ozone monitor and a SLAMS sulfur dioxide monitor operate continuously using the UV photometric and UV fluorescent methods of analysis respectively. A SLAMS PM_{2.5} sampler operates for 24-hours every third day. A special purpose continuous TEOM PM₁₀ sampler provides 24-hour sample values. Particulates are determined gravimetrically.

AREA REPRESENTATIVENESS:

The site represents maximum concentrations on an urban scale for ozone and population exposure on a neighborhood scale for sulfur dioxide and particulates.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 3/27/03)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Guffie (City)	McLean (County)	3962 KY 815, Tichenor Farm (Address)
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EPA SITE NO: 21-149-0001

REGION: (077) Evansville-Henderson Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4161.175 **EASTING** 477.650

DESIGNATION: SPM - Special Purpose Monitor

DATE ESTABLISHED: August 1, 1991

SITE DESCRIPTION:

The monitoring site is a trailer located on a lawn near the farmhouse on KY 815. The sample inlet is 13 feet above ground level and 65 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A special purpose ozone monitor operates continuously using the UV photometric method of analysis.

AREA REPRESENTATIVENESS:

The site represents upwind background concentrations on an urban scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.
To provide ozone data upwind of the Owensboro area.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 11/8/00)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Echols
(City)

Ohio
(County)

Keytown Road
(Address)

EPA SITE NO: 21-183-0032

REGION: (077) Evansville-Henderson

MAP LOCATION: UTM ZONE 16 **NORTHING** 4130.140 **EASTING** 503.890

DESIGNATION: SPM - Special Purpose Monitoring Station

DATE ESTABLISHED: February 1, 2005

SITE DESCRIPTION:

The site is in a mobile shelter located in a pasture on Keytown Road near the intersection with Pond Church Road. The sample inlets are 12 feet above ground level and 100 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

Special purpose intermittent and continuous PM_{2.5} particulate samplers provide 24-hour sample values. Particulates are determined gravimetrically. Special purpose ozone and sulfur dioxide monitors operate continuously using the UV photometric and UV fluorescent methods of analysis respectively.

AREA REPRESENTATIVENESS:

The site represents maximum exposure on an urban scale.

MONITORING OBJECTIVES:

To judge compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

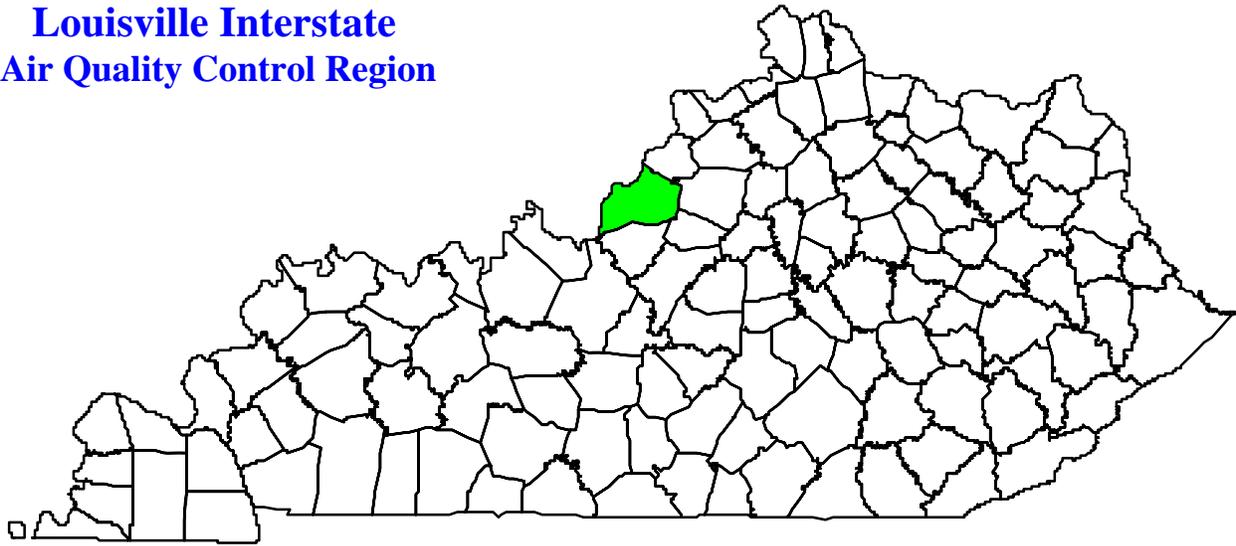
Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 2/3/05)

Louisville Interstate Air Quality Control Region



AIR QUALITY SURVEILLANCE NETWORK LOUISVILLE INTERSTATE REGION (078)

AIRS ID	ADDRESS	PM _{2.5}	PM ₁₀	SO ₂	NO ₂	CO	O ₃	MET
21-111-0027	7601 Bardstown Road Louisville (Jefferson)	X(s)					X(I)	
21-111-0043	3621 Southern Avenue Louisville (Jefferson)	X(c) (Ia)	X(c)					X
21-111-0044	1032 Beecher Avenue Louisville (Jefferson)	X	X(N) (I)					
21-111-0046	3510 Goldsmith Lane Louisville (Jefferson)					X(N) (I)		
21-111-0048	850 Barret Avenue Louisville (Jefferson)	X(a) (I)						
21-111-0051	7201 Watson Lane Louisville (Jefferson)	X(s) (I)		X(I)			X(I)	
21-111-1019	1735 Bardstown Road Louisville (Jefferson)					X(I)		
21-111-1021	1918 Mellwood Ave, WLKY-TV Louisville (Jefferson)				X(e)		X(N)	
21-111-1041	4201 Algonquin Parkway Louisville (Jefferson)			X(N) (Ie)				
TOTAL		5	2	2	1	2	3	1

- (a) Speciation sampler included
- (c) Collocated Monitor
- (e) Emergency Episode Monitor
- (I) Air Quality Index Monitor
- (N) National Air Monitoring Station (NAMS) Monitor
- (s) Special Purpose Monitor

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Louisville (City)	Jefferson (County)	Bates Elementary, 7601 Bardstown Rd (Address)
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EPA SITE NO: 21-111-0027

REGION: (078) Louisville Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4221.800 **EASTING** 624.600

DESIGNATION: SLAMS - State and Local Air Monitoring Station
SPM - Special Purpose Monitor (PM_{2.5})
AQI - Air Quality Index site

DATE ESTABLISHED: January 4, 1973

SITE DESCRIPTION:

The site is a mobile trailer located on the grounds of Bates Elementary School. The sample inlet is 13 feet above ground level and 1000 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS ozone analyzer operates continuously using the UV photometric method of analysis. A special purpose PM_{2.5} sampler operates continuously providing daily 24-hour sample values. Particulates are determined gravimetrically

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale for PM_{2.5} and on an urban scale for ozone.

MONITORING OBJECTIVES:

To judge compliance with and/or progress made toward meeting ambient air quality standards. To provide pollution levels for daily index reporting.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 4/28/042)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Louisville (City)	Jefferson (County)	Community Center, 3621 Southern Ave (Address)
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EPA SITE NO: 21-111-0043

REGION: (078) Louisville Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4232.027 **EASTING** 602.816

DESIGNATION: SLAMS - State and Local Air Monitoring Station
SPM - Special Purpose Monitor
AQI - Air Quality Index site

DATE ESTABLISHED: July 1, 1983

SITE DESCRIPTION:

The site is located on the roof of the Southwick Park Community Center. The sample inlets are 16 feet above ground level and 200 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

An intermittent SLAMS PM_{2.5} particulate sampler operates for 24 hours daily. A continuously operating special purpose PM_{2.5} provides daily index values. A SLAMS PM₁₀ sampler along with duplicate PM₁₀ and PM_{2.5} samplers operate for 24 hours every sixth day. Particulates are determined gravimetrically. A PM_{2.5} speciation sampler operates for 24 hours every sixth day.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.
To provide pollutant levels for daily index reporting.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 9/17/02)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Louisville (City)	Jefferson (County)	Wyandotte Park, 1032 Beecher Avenue (Address)
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EPA SITE NO: 21-111-0044

REGION: (078) Louisville Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4227.485 **EASTING** 606.791

DESIGNATION: SLAMS - State and Local Air Monitoring Station
NAMS - National Air Monitoring Station (PM₁₀)
AQI - Air Quality Index site

DATE ESTABLISHED: September 1, 1983

SITE DESCRIPTION:

The site is located on the roof of the pool house in Wyandotte Park. The sample inlets are 16 feet above ground level and 150 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS PM_{2.5} particulate sampler operates for 24 hours daily. A NAMS PM₁₀ particulate sampler operates for 24 hours every sixth day along with a continuously operating special purpose PM₁₀ sampler. Particulates are determined gravimetrically.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards. To observe pollution trends and provide information for national data analysis. To provide pollutant levels for daily index reporting

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 12/3/02)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Louisville (City)	Jefferson (County)	Seneca High School, Goldsmith Lane (Address)
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EPA SITE NO: 21-111-0046

REGION: (078) Louisville Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4229.550 **EASTING** 617.700

DESIGNATION: SLAMS - State and Local Air Monitoring Station
NAMS - National Air Monitoring Station
AQI - Air Quality Index site

DATE ESTABLISHED: April 1, 1987

SITE DESCRIPTION:

The monitoring site is located in the school building. The sample inlet is 37 feet above ground level and 600 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A NAMS carbon monoxide analyzer operates continuously using the non-dispersive infrared method.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To observe pollution trends and provide information for national data analysis. To determine compliance with and/or progress made toward meeting ambient air quality standards. To provide pollutant levels for daily index reporting.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 3/11/99)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Louisville (City)	Jefferson (County)	850 Barret Avenue (Address)
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EPA SITE NO: 21-111-0048

REGION: (078) Louisville Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4233.050 **EASTING** 610.990

DESIGNATION: SLAMS - State and Local Air Monitoring Station
AQI - Air Quality Index

DATE ESTABLISHED: November 1, 1989

SITE DESCRIPTION:

The site is located on the roof of the three-story building. The sample inlets are 33 feet above ground level and 175 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

An intermittent SLAMS PM_{2.5} particulate sampler operates for 24 hours every third day. A continuously operating PM_{2.5} sampler provides daily index values. A PM_{2.5} speciation sampler operates for 24 hours every sixth day. Particulates are determined gravimetrically.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.
To provide pollutant levels for daily index reporting.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 9/17/02)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Louisville
(City)

Jefferson
(County)

Watson Lane School, 7201 Watson Ln
(Address)

EPA SITE NO: 21-111-0051

REGION: (078) Louisville Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4212.940 **EASTING** 596.843

DESIGNATION: SLAMS - State and Local Air Monitoring Station
SPM - Special Purpose Monitor (PM_{2.5})
AQI - Air Quality Index site

DATE ESTABLISHED: July 16, 1992

SITE DESCRIPTION:

The site is a mobile trailer located on the grounds of Watson Lane Elementary School. The sample inlets are 13 feet above ground level and 125 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

SLAMS sulfur dioxide and ozone analyzers operate continuously using the UV fluorescent and UV photometric methods of analysis respectively. A special purpose PM_{2.5} particulate sampler operates for 24 hours every sixth day. A continuously operating PM_{2.5} provides daily sample values for index reporting. Particulates are determined gravimetrically.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.
To provide pollutant levels for daily index reporting.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 9/17/02)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Louisville
(City)

Jefferson
(County)

Fire Station 20, 1735 Bardstown Rd
(Address)

EPA SITE NO: 21-111-1019

REGION: (078) Louisville Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4231.900 **EASTING** 613.600

DESIGNATION: SLAMS - State and Local Air Monitoring Station
AQI - Air Quality Index site

DATE ESTABLISHED: January 1, 1973

SITE DESCRIPTION:

The monitoring site is located in the fire station. The sample inlet is 10 feet above ground level and 13 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A carbon monoxide analyzer operates continuously using the non-dispersive infrared method.

AREA REPRESENTATIVENESS:

The site represents maximum concentrations on a micro scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.
To provide pollutant levels for daily index reporting.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 9/17/02)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Louisville
(City)

Jefferson
(County)

WLKY-TV, 1918 Mellwood Avenue
(Address)

EPA SITE NO: 21-111-1021

REGION: (078) Louisville Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4235.700 **EASTING** 612.800

DESIGNATION: SLAMS - State and Local Air Monitoring Station
NAMS - National Air Monitoring Station (Ozone)
EPISODE - Emergency Episode Monitoring site
AQI - Air Quality Index site

DATE ESTABLISHED: August 31, 1973

SITE DESCRIPTION:

The site is located in the WLKY-TV building. The sample inlets are 15 feet above ground level and 500 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A NAMS ozone analyzer operates continuously using the UV photometric method of analysis. A SLAMS nitrogen dioxide analyzer operates continuously using the chemiluminescence method.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale for ozone and on an urban scale for nitrogen dioxide.

MONITORING OBJECTIVES:

To observe pollution trends and provide information for national data analysis. To determine compliance with and/or progress made toward meeting ambient air quality standards. To detect episode levels for the activation of emergency control procedures. To provide pollution levels for daily index reporting.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 3/11/99)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Louisville (City)	Jefferson (County)	4201 Algonquin Parkway (Address)
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EPA SITE NO: 21-111-1041

REGION: (078) Louisville Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4231.475 **EASTING** 602.993

DESIGNATION: SLAMS - State and Local Air Monitoring Station
NAMS - National Air Monitoring Station
EPISODE - Emergency Episode Monitoring site
AQI - Air Quality Index site

DATE ESTABLISHED: April 13, 1978

SITE DESCRIPTION:

The site is a mobile trailer located on the grounds of the Firearms Training Center. The sample inlet is 15 feet above ground level and 100 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A NAMS sulfur dioxide analyzer operates continuously using the UV fluorescent method.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To observe pollution trends and provide information for national data analysis. To determine compliance with and/or progress made toward meeting ambient air quality standards. To detect episode levels for the activation of emergency control procedures. To provide pollution levels for daily index reporting.

SITE APPROVAL STATUS:

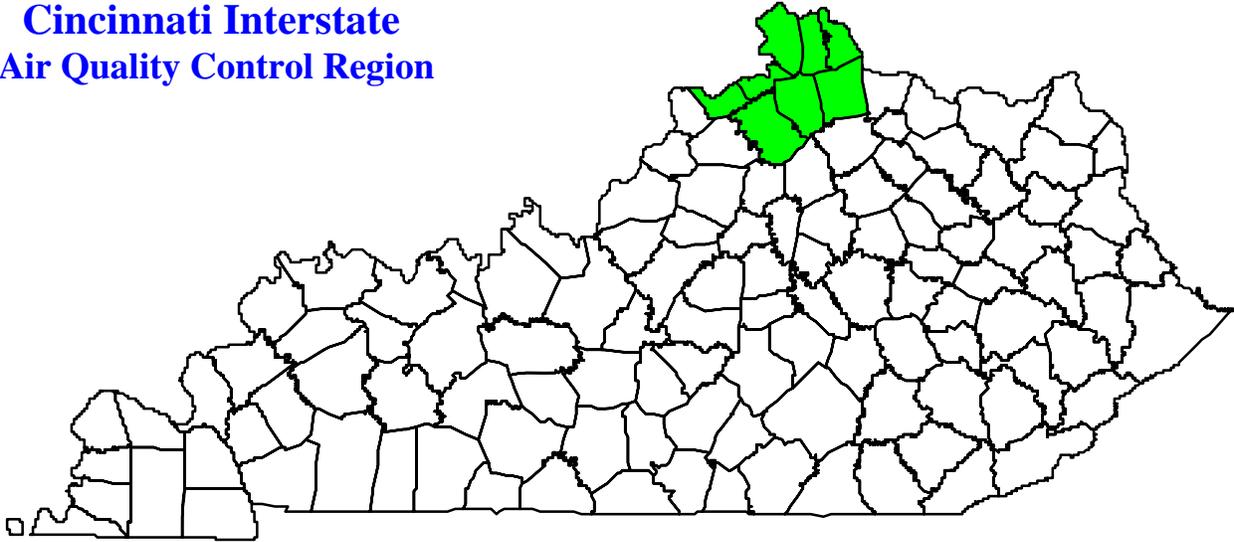
Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 3/11/99)

**Cincinnati Interstate
Air Quality Control Region**



**AIR QUALITY SURVEILLANCE NETWORK
CINCINNATI INTERSTATE REGION (079)**

AIRS ID	ADDRESS	PM_{2.5}	PM₁₀	SO₂	NO₂	CO	O₃	MET
21-015-0003	KY 338 & Lower River Road East Bend (Boone)			X(s)			X	X
21-037-0003	700 Alexandria, NKY Water Plant Fort Thomas (Campbell)	X	X(e)	X(e) (I)	X(e)		X(e) (I)	
21-117-0007	1401 Dixie Highway Covington (Kenton)	X(a) (I)					X	X
TOTAL		2	1	2	1	0	3	2

- (a) Speciation sampler included
- (e) Emergency Episode Monitor
- (I) Air Quality Index Monitor
- (s) Special Purpose Monitor

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

East Bend
(City)

Boone
(County)

KY 338 & Lower River Road
(Address)

EPA SITE NO: 21-015-0003

REGION: (079) Cincinnati Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4309.690 **EASTING** 686.165

DESIGNATION: SLAMS - State and Local Air Monitoring Station
SPM - Special Purpose Monitor (Sulfur dioxide)

DATE ESTABLISHED: July 1, 1977

SITE DESCRIPTION:

The site is a trailer located at the intersection of KY 338 and Lower River Road. The sample inlet is 12 feet above ground level and 50 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS ozone monitor operates continuously using the UV photometric method of analysis. A special purpose sulfur dioxide monitor operates continuously using the UV fluorescent method.

AREA REPRESENTATIVENESS:

The site represents source impact on an urban scale for sulfur dioxide and background levels on an urban scale for ozone.

MONITORING OBJECTIVES:

To judge compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 4/21/05)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Fort Thomas (City)	Campbell (County)	NKY Water Plant, 700 Alexandria Pike (Address)
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EPA SITE NO: 21-037-0003

REGION: (079) Cincinnati Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4326.880 **EASTING** 720.395

DESIGNATION: SLAMS - State and Local Air Monitoring Station
EPISODE - Emergency episode monitoring site
AQI - Air Quality Index site

DATE ESTABLISHED: January 1, 1999

SITE DESCRIPTION:

The site is a trailer located on the grounds of the Northern Kentucky Water District treatment plant. The sample inlets are 13 feet above ground level and 800 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS PM_{2.5} particulate sampler operates for 24 hours every third day. A SLAMS PM₁₀ particulate sampler operates continuously providing 24-hour sample values. Particulates are determined gravimetrically. SLAMS ozone and sulfur dioxide monitors operate continuously using the UV photometric and UV fluorescent methods of analysis respectively. A SLAMS nitrogen dioxide monitor operates continuously using the chemiluminescence method.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale for sulfur dioxide and particulates and on an urban scale for nitrogen dioxide. The site represents maximum exposure on an urban scale for ozone.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards. To detect episode levels for the activation of emergency control procedures. To provide pollutant levels for daily index reporting.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 2/22/05)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Covington (City)	Kenton (County)	1401 Dixie Hwy, University College (Address)
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EPA SITE NO: 21-117-0007

REGION: (079) Cincinnati Interstate

MAP LOCATION: UTM ZONE 16 **NORTHING** 4327.315 **EASTING** 714.185

DESIGNATION: SLAMS - State and Local Air Monitoring Station
AQI - Air Quality Index Site (PM₁₀)

DATE ESTABLISHED: August 22, 1975

SITE DESCRIPTION:

The site is a mobile trailer located on the grounds of the school. The sample inlets are 13 feet above ground level and 40 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS PM_{2.5} particulate sampler operates for 24 hours every third day. A PM_{2.5} speciation sampler operates for 24 hours every sixth day. A continuously operating TEOM PM_{2.5} particulate sampler provides 24-hour values for daily index reporting. Particulate samples are determined gravimetrically. A SLAMS ozone monitor operates continuously using the UV photometric method of analysis.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.
To provide particulate levels for daily index reporting.

SITE APPROVAL STATUS:

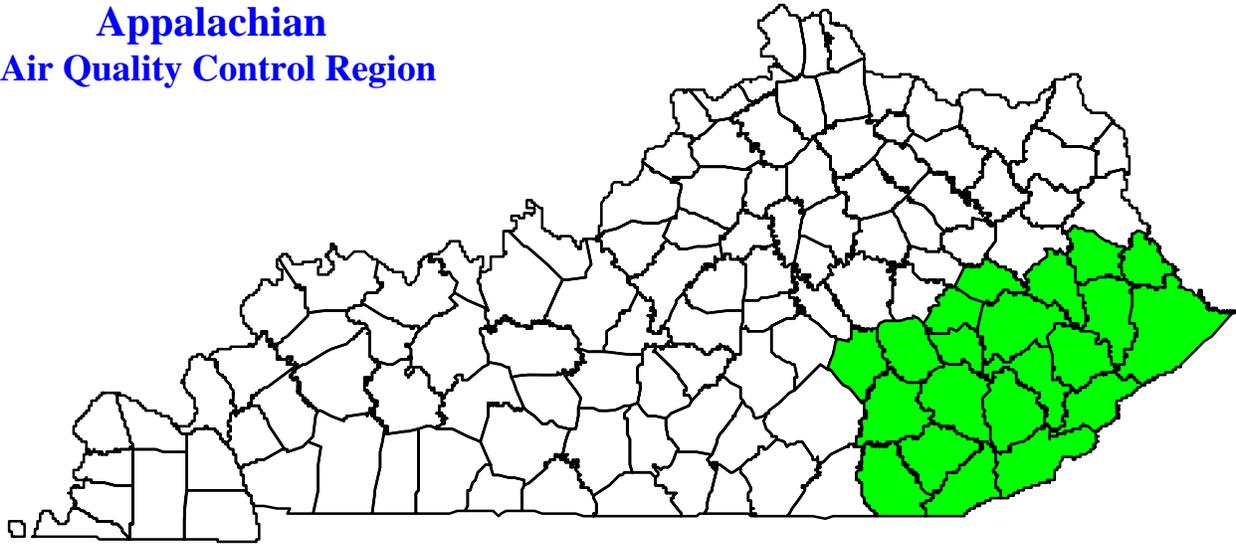
Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 2/28/05)

**Appalachian
Air Quality Control Region**



**AIR QUALITY SURVEILLANCE NETWORK
APPALACHIAN REGION (101)**

AIRS ID	ADDRESS	PM_{2.5}	PM₁₀	SO₂	NO₂	CO	O₃	MET
21-013-0002	Airport, 34 th & Dorchester Middlesboro (Bell)	X(s)	X(s)				X(s)	X
21-125-0004	London Airport, 566 Airport Rd London (Laurel)	X(s) (a)	X(s)					
21-193-0003	Perry County Horse Park Hazard (Perry)	X(s)	X				X(s) (e)	X
21-195-0002	101 N. Mayo Trail, DOT Office Pikeville (Pike)	X(c)	X(l) (e)				X(s) (l)	
TOTAL		4	4	0	0	0	3	2

- (a) Speciation sampler included
- (c) Collocated Monitor
- (l) Air Quality Index Monitor
- (s) Special Purpose Monitor

(Rev. 1/11/05)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Middlesboro (City)	Bell (County)	Middlesboro Airport (Address)
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EPA SITE NO: 21-013-0002

REGION: (101) Appalachian

MAP LOCATION: UTM ZONE 17 **NORTHING** 4054.730 **EASTING** 254.269

DESIGNATION: SPM - Special Purpose Monitor

DATE ESTABLISHED: February 14, 1992

SITE DESCRIPTION:

The monitoring site is a trailer located on the grounds of the Middlesboro Airport. The sample inlets are 13 feet above ground level and 55 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

Special purpose PM_{2.5} and PM₁₀ particulate samplers operate for 24 hours every sixth day. Particulates are determined gravimetrically. A special purpose ozone monitor operates continuously using the UV photometric method of analysis.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale for particulates and transportation levels on a regional scale for ozone.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.
To provide information on the transport of ozone into the region.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 12/10/01)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

London (City)	Laurel (County)	London-Corbin Airport, 566 Airport Rd (Address)
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EPA SITE NO: 21-125-0004

REGION: (101) Appalachian

MAP LOCATION: UTM ZONE 16 **NORTHING** 4108.375 **EASTING** 761.035

DESIGNATION: SPM - Special Purpose Monitor

DATE ESTABLISHED: January 1, 2002

SITE DESCRIPTION:

The monitoring site is a ground level platform located near the terminal building. The sample inlets are 7 feet above ground level and 75 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

Special purpose PM₁₀ and PM_{2.5} particulate samplers and a PM_{2.5} speciation sampler operate for 24 hours every sixth day. Particulate samples are determined gravimetrically.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

Site and monitor meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 9/18/02)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Hazard (City)	Perry (County)	Perry County Horse Park (Address)
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EPA SITE NO: 21-193-0003

REGION: (101) Appalachian

MAP LOCATION: UTM ZONE 17 **NORTHING** 4128.405 **EASTING** 303.165

DESIGNATION: SLAMS - State and Local Air Monitoring Station
SPM - Special Purpose Monitor (Ozone, PM_{2.5})
EPISODE - Emergency episode monitoring sites

DATE ESTABLISHED: April 1, 2000

SITE DESCRIPTION:

The monitoring site is a trailer located on the grounds of the Perry County Horse Park. The sample inlet is 15 feet above ground level and 65 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS PM₁₀ particulate sampler and a special purpose PM_{2.5} particulate sampler operate for 24 hours every sixth day. A PM_{2.5} speciation sampler operates for 24 hours every sixth day. Particulate samples are determined gravimetrically. A special purpose ozone monitor operates continuously using the UV photometric method of analysis.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.
To detect elevated pollutant levels for activation of emergency control procedures for ozone.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 12-11-01)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Pikeville (City)	Pike (County)	DOT District Office, 101 North Mayo Trail (Address)
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EPA SITE NO: 21-195-0002

REGION: (101) Appalachian

MAP LOCATION: UTM ZONE 17 **NORTHING** 4149.325 **EASTING** 364.270

DESIGNATION: SLAMS - State and Local Air Monitoring Station
SPM - Special Purpose Monitor (Ozone)
AQI - Air Quality Index Site
EPISODE - Emergency episode monitoring site

DATE ESTABLISHED: May 1, 1994

SITE DESCRIPTION:

The site is a mobile trailer located behind the DOT District Office building. The sample inlets are 13 feet above ground level and 115 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS PM_{2.5} particulate sampler operates for 24 hours every third day while a duplicate PM_{2.5} sampler operates every sixth day. A SLAMS PM₁₀ particulate sampler operates continuously providing daily 24-hour sample values. Particulate samples are determined gravimetrically. A special purpose ozone monitor operates continuously using the UV photometric method of analysis.

AREA REPRESENTATIVENESS:

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

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards. To provide pollutant levels for daily index reporting. To detect elevated pollutant levels for activation of emergency control procedures for particulates.

SITE APPROVAL STATUS:

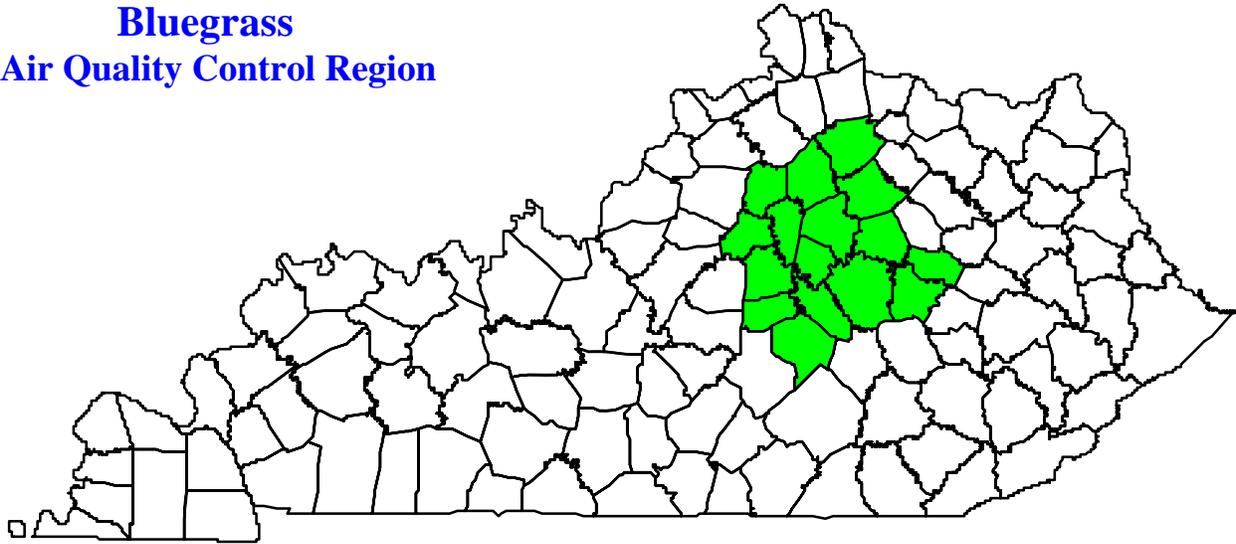
Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 4/28/04)

**Bluegrass
Air Quality Control Region**



**AIR QUALITY SURVEILLANCE NETWORK
BLUEGRASS REGION (102)**

AIRS ID	ADDRESS	PM_{2.5}	PM₁₀	SO₂	NO₂	CO	O₃	MET
21-067-0001	Iron Works Pike Fayette County						X(N)	
21-067-0012	650 Newtown Pike Lexington (Fayette)	X(a)		X(e) (I)	X(e)		X(N) (Ie)	
21-067-0014	533 South Limestone Lexington (Fayette)	X	X					
21-073-0006	803 Schenkel Lane Frankfort (Franklin)	X						
21-113-0001	KY DOT Garage, US 27 Bypass Nicholasville (Jessamine)						X	X
21-151-0003	Mayfield Elementary Sch, Bond St Richmond (Madison)	X	X					
TOTAL		4	2	1	1	0	3	1

- (a) Speciation sampler included
- (e) Emergency Episode Monitor
- (I) Air Quality Index Monitor
- (N) National Air Monitoring Station (NAMS) monitor
- (s) Special Purpose Monitor

(Rev. 1/11/05)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Lexington
(City)

Fayette
(County)

Ironworks Pike
(Address)

EPA SITE NO: 21-067-0001

REGION: (102) Bluegrass

MAP LOCATION: UTM ZONE 16 **NORTHING** 4222.599 **EASTING** 721.916

DESIGNATION: NAMS - National Air Monitoring Station
SLAMS - State and Local Air Monitoring Station

DATE ESTABLISHED: March 30, 1978

SITE DESCRIPTION:

The monitoring site is a trailer located on Ironworks Pike, approximately 1.25 miles west of Russell Cave Road. The sample inlet is 13 feet above ground level and 25 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A NAMS ozone monitor operates continuously using the UV photometric method of analysis.

AREA REPRESENTATIVENESS:

The site represents maximum exposure on an urban scale.

MONITORING OBJECTIVES:

To judge compliance with and/or progress made toward meeting ambient air quality standards. To observe pollution trends and provide information for national data analysis.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 3/8/99)

Kentucky Department for Environmental Protection
AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Lexington (City)	Fayette (County)	650 Newtown Pike (Address)
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EPA SITE NO: 21-067-0012

REGION: (102) Bluegrass

MAP LOCATION: UTM ZONE 16 **NORTHING** 4215.775 **EASTING** 719.325

DESIGNATION: NAMS - National Air Monitoring Station (Ozone)
SLAMS - State and Local Air Monitoring Station
Episode - Emergency episode monitoring site
AQI - Air Quality Index

DATE ESTABLISHED: November 8, 1979

SITE DESCRIPTION:

The monitoring site is a trailer located on the grounds of the Fayette County Health Department. The sample inlets are 13 feet above ground level and 385 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A NAMS ozone monitor and a SLAMS sulfur dioxide monitor operate continuously using UV photometric and UV fluorescent methods. A SLAMS continuous nitrogen dioxide monitor operates using the chemiluminescence method. A SLAMS PM_{2.5} particulate sampler operates for 24 hours every third day. A PM_{2.5} speciation sampler operates every sixth day. A continuous TEOM PM_{2.5} sampler provides 24-hour values for index reporting. Particulates are determined gravimetrically.

AREA REPRESENTATIVENESS:

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

MONITORING OBJECTIVES:

To judge compliance with and/or progress made toward meeting ambient air quality standards. To detect elevated pollutant levels for activation of emergency control procedures. To provide pollutant levels for daily index reporting. To observe pollution trends for national data analysis for ozone.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 4/30/04)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Lexington (City)	Fayette (County)	533 South Limestone (Address)
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EPA SITE NO: 21-067-0014

REGION: (102) Bluegrass

MAP LOCATION: UTM ZONE 16 **NORTHING** 4212.768 **EASTING** 718.890

DESIGNATION: SLAMS - State and Local Air Monitoring Station

DATE ESTABLISHED: October 2, 1982

SITE DESCRIPTION:

The site is located on the roof of the Whalen Transportation Research Building on the UK campus. The sample inlet is 32 feet above ground level and 60 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS PM_{2.5} particulate sampler and a SLAMS PM₁₀ particulate sampler operate for 24 hours every third day and sixth day respectively. Particulate samples are determined gravimetrically.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To judge compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 3/8/99)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Frankfort (City)	Franklin (County)	803 Schenkel Lane (Address)
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EPA SITE NO: 21-073-0006

REGION: (102) Bluegrass

MAP LOCATION: UTM ZONE 16 **NORTHING** 4232.135 **EASTING** 689.238

DESIGNATION: SLAMS - State and Local Air Monitoring Station

DATE ESTABLISHED: January 1, 1999

SITE DESCRIPTION:

The site is located on the roof of the Ragland Building. The sample inlet is 18 feet above ground level and 250 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS PM_{2.5} particulate sampler operates for 24 hours every third day. Particulate samples are determined gravimetrically.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 3/8/99)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Nicholasville (City)	Jessamine (County)	DOT Garage, US 27 Bypass (Address)
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EPA SITE NO: 21-113-0001

REGION: (102) Bluegrass

MAP LOCATION: UTM ZONE 16 **NORTHING** 4196.525 **EASTING** 711.990

DESIGNATION: SLAMS - State and Local Air Monitoring Station

DATE ESTABLISHED: August 1, 1991

SITE DESCRIPTION:

The site is a trailer located on the grounds of the Kentucky DOT Garage. The sample inlet is 13 feet above ground level and 300 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS ozone monitor operates continuously using the UV photometric method of analysis.

AREA REPRESENTATIVENESS:

The site represents population exposure on an urban scale.

MONITORING OBJECTIVES:

To judge compliance with and/or progress made toward meeting ambient air quality standards. To provide ozone data upwind of the Lexington area.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 3/8/99)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Richmond
(City)

Madison
(County)

Mayfield School, Bond Street
(Address)

EPA SITE NO: 21-151-0003

REGION: (102) Bluegrass

MAP LOCATION: UTM ZONE 16 **NORTHING** 4180.025 **EASTING** 739.195

DESIGNATION: SLAMS - State and Local Air Monitoring Station

DATE ESTABLISHED: January 1, 1999

SITE DESCRIPTION:

The site is located on the roof at the rear of the Mayfield School. The sample inlet is 15 feet above ground level and 200 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS PM_{2.5} particulate sampler along with a SLAMS PM₁₀ particulate sampler operate for 24 hours every third and sixth days respectively. Particulate samples are determined gravimetrically.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

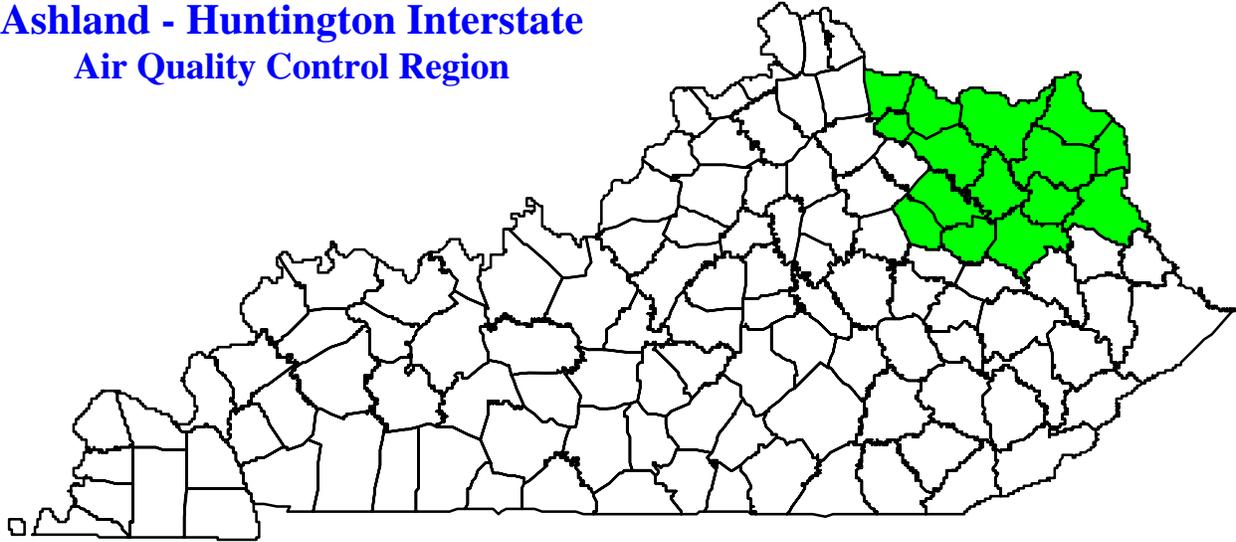
Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 3/8/99)

**Ashland - Huntington Interstate
Air Quality Control Region**



**AIR QUALITY SURVEILLANCE NETWORK
ASHLAND-HUNTINGTON INTERSTATE REGION (103)**

AIRS ID	ADDRESS	PM_{2.5}	PM₁₀	SO₂	NO₂	CO	O₃	MET
21-019-0002	21 st & Greenup Ashland (Boyd)		X(N) (c)					
21-019-0017	2924 Holt St, FIVCO Health Dept Ashland (Boyd)	X(a)		X(e) (I)	X(e)		X(e) (I)	X
21-043-0500	Camp Webb, Grayson Lake Grayson (Carter)	X					X(s)	X
21-089-0007	Water Tower, Scott & Center Sts. Worthington (Greenup)			X(s)			X	
TOTAL		2	1	2	1	0	3	2

- (a) Speciation sampler included
- (c) Collocated Monitor
- (e) Emergency Episode Monitor
- (I) Air Quality Index Monitor
- (N) National Air Monitoring Station (NAMS) Monitor
- (s) Special Purpose Monitor

(Rev. 1/11/05)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Ashland (City)	Boyd (County)	21 st and Greenup Streets (Address)
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EPA SITE NO: 21-019-0002

REGION: (103) Ashland-Huntington

MAP LOCATION: UTM ZONE 17 **NORTHING** 4259.765 **EASTING** 357.690

DESIGNATION: SLAMS - State and Local Air Monitoring Station
NAMS - National Air Monitoring Station

DATE ESTABLISHED: April 2, 1978

SITE DESCRIPTION:

The site is located on the west end of the one-story roof of the building. The sample inlet is 19 feet above ground level and 100 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A NAMS PM₁₀ particulate sampler along with a duplicate PM₁₀ sampler operate for 24 hours every sixth day. Particulate samples are determined gravimetrically.

AREA REPRESENTATIVENESS:

The site represents maximum concentrations on a middle scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.
To observe pollution trends and provide information for national data analysis.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 2/22/05)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Ashland (City)	Boyd (County)	FIVCO Health Dept., 2924 Holt Street (Address)
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EPA SITE NO: 21-019-0017

REGION: (103) Ashland-Huntington

MAP LOCATION: UTM ZONE 17 **NORTHING** 4257.830 **EASTING** 356.855

DESIGNATION: SLAMS - State and Local Air Monitoring Station
EPISODE - Emergency episode monitoring site
AQI - Air Quality Index site

DATE ESTABLISHED: January 1, 1999

SITE DESCRIPTION:

The site is a mobile shelter located on a grass covered open area behind the health department building. The sample inlets are 13 feet above ground level and 240 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

SLAMS ozone and sulfur dioxide monitors operate continuously using the UV photometric and UV fluorescent methods of analysis. A SLAMS nitrogen dioxide monitor operates continuously using the chemiluminescence method. A SLAMS PM_{2.5} particulate sampler operates for 24 hours every third day. A PM_{2.5} speciation sampler operates 24 hours every sixth day. A continuous TEOM PM_{2.5} sampler provides daily index values. Particulates are determined gravimetrically.

AREA REPRESENTATIVENESS:

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

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards. To detect episode levels for activation of emergency control procedures. To provide pollution levels for daily index reporting.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 2/4/03)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Grayson (City)	Carter (County)	Camp Webb, Grayson Lake (Address)
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EPA SITE NO: 21-043-0500

REGION: (103) Ashland-Huntington

MAP LOCATION: UTM ZONE 17 **NORTHING** 4233.922 **EASTING** 325.984

DESIGNATION: SLAMS - State and Local Air Monitoring Station
SPM - Special Purpose Monitor (Ozone)

DATE ESTABLISHED: May 13, 1981

SITE DESCRIPTION:

The site is a mobile shelter in a fenced area located in a remote section of the park. The sample inlets are 13 feet above ground level. A service road is the only roadway near the site.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS PM_{2.5} particulate sampler operates for 24 hours every third day. Particulate samples are determined gravimetrically. A special purpose ozone monitor operates continuously using the UV photometric method of analysis.

AREA REPRESENTATIVENESS:

The site represents background levels on an urban scale.

MONITORING OBJECTIVES:

To determine background levels of PM_{2.5}. To judge compliance with and/or progress made toward meeting ambient air quality standards. To provide ozone data upwind of the Ashland area.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 12/8/00)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Worthington (City)	Greenup (County)	Scott Street & Center Avenue (Address)
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EPA SITE NO: 21-089-0007

REGION: (103) Ashland-Huntington

MAP LOCATION: UTM ZONE 17 **NORTHING** 4267.850 **EASTING** 349.100

DESIGNATION: SLAMS - State and Local Air Monitoring Station
SPM - Special Purpose Monitor (Sulfur dioxide)

DATE ESTABLISHED: October 12, 1980

SITE DESCRIPTION:

The site is located in a mobile trailer at the water tower near the intersection of Scott Street and Center Avenue. The sample inlets are 13 feet above ground level and 57 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS ozone monitor operates continuously using the UV photometric method of analysis. A special purpose sulfur dioxide monitor operates continuously using the UV fluorescence method.

AREA REPRESENTATIVENESS:

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

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

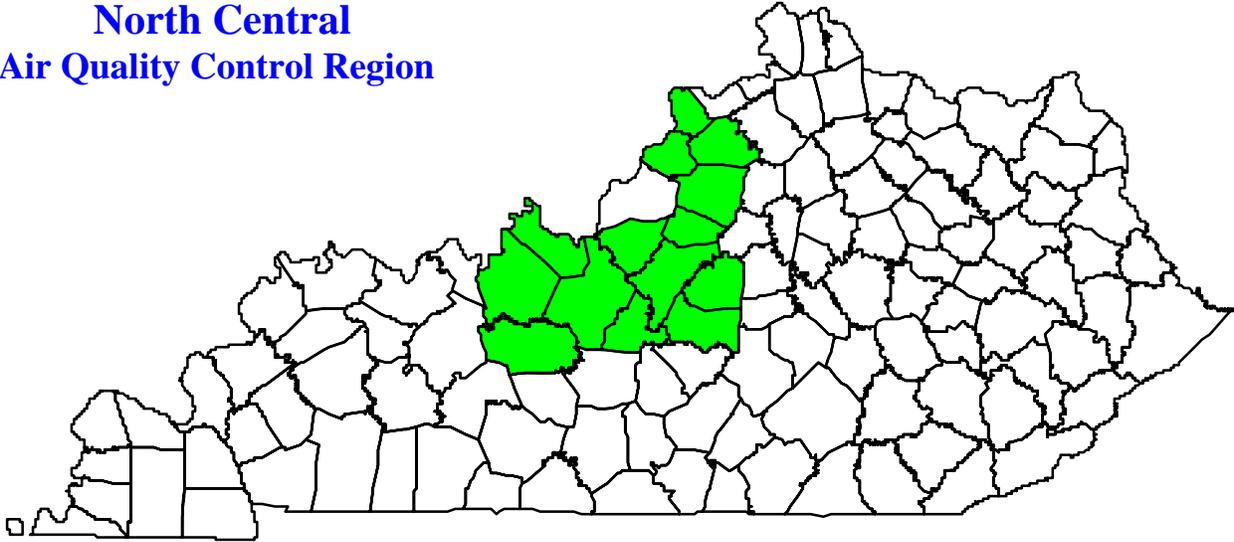
Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 12/8/00)

**North Central
Air Quality Control Region**



**AIR QUALITY SURVEILLANCE NETWORK
NORTH CENTRAL REGION (104)**

AIRS ID	ADDRESS	PM_{2.5}	PM₁₀	SO₂	NO₂	CO	O₃	MET
21-029-0006	2 nd & Carpenter Streets Shepherdsville (Bullitt)	X	X		X(s)		X	X
21-093-0006	801 N Miles St, Am Legion Park Elizabethtown (Hardin)	X	X				X(s)	
21-185-0004	DOT Garage, 3995 Morgan Rd Buckner (Oldham)						X	
TOTAL		2	2	0	1	0	3	1

(s) Special Purpose Monitor

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Shepherdsville (City)	Bullitt (County)	Second & Carpenter Streets (Address)
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EPA SITE NO: 21-029-0006

REGION: (104) North Central

MAP LOCATION: UTM ZONE 16 **NORTHING** 4204.809 **EASTING** 613.025

DESIGNATION: SLAMS - State and Local Air Monitoring Station
SPM - Special Purpose Monitor (Nitrogen dioxide)

DATE ESTABLISHED: January 30, 1992

SITE DESCRIPTION:

The site is a shelter located in a fenced area near the intersection of Second and Carpenter Streets. The sample inlets are 13 feet above ground level. The site is 70 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS ozone monitor operates continuously using the UV photometric method of analysis. SLAMS PM_{2.5} and PM₁₀ particulate samplers operate for 24 hours every third and sixth days respectively. Particulate samples are determined gravimetrically. A special purpose nitrogen dioxide monitor operates continuously using the chemiluminescence method of analysis.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale for particulates and on an urban scale for nitrogen dioxide and ozone.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 4/3/05)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Elizabethtown (City)	Hardin (County)	801 N Miles St, American Legion Park (Address)
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EPA SITE NO: 21-093-0006

REGION: (104) North Central

MAP LOCATION: UTM ZONE 16 **NORTHING** 4173.645 **EASTING** 601.215

DESIGNATION: SLAMS - State and Local Air Monitoring Station
SPM - Special Purpose Monitor (Ozone)

DATE ESTABLISHED: February 24, 2000

SITE DESCRIPTION:

The site is a mobile trailer located near the tennis courts on the grounds of the American Legion Park. The sample inlet is 13 feet above ground level and 800 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS PM_{2.5} particulate sampler operates for 24 hours every third day. A SLAMS PM₁₀ sampler operates for 24 hours every sixth day. Particulates are determined gravimetrically. A special purpose ozone monitor operates continuously using the UV photometric method of analysis.

AREA REPRESENTATIVENESS:

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

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 4/30/04)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Buckner (City)	Oldham (County)	3995 Morgan Rd, DOT Garage (Address)
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EPA SITE NO: 21-185-0004

REGION: (104) North Central

MAP LOCATION: UTM ZONE 16 **NORTHING** 4250.990 **EASTING** 635.928

DESIGNATION: SLAMS - State and Local Air Monitoring Station

DATE ESTABLISHED: May 1, 1981

SITE DESCRIPTION:

The monitoring site is a trailer located on the grounds of the DOT Highway Garage. The sample inlet is 13 feet above ground level and 250 feet from the nearest street.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS ozone analyzer operates continuously using the UV photometric method of analysis.

AREA REPRESENTATIVENESS:

The site represents maximum concentrations on an urban scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

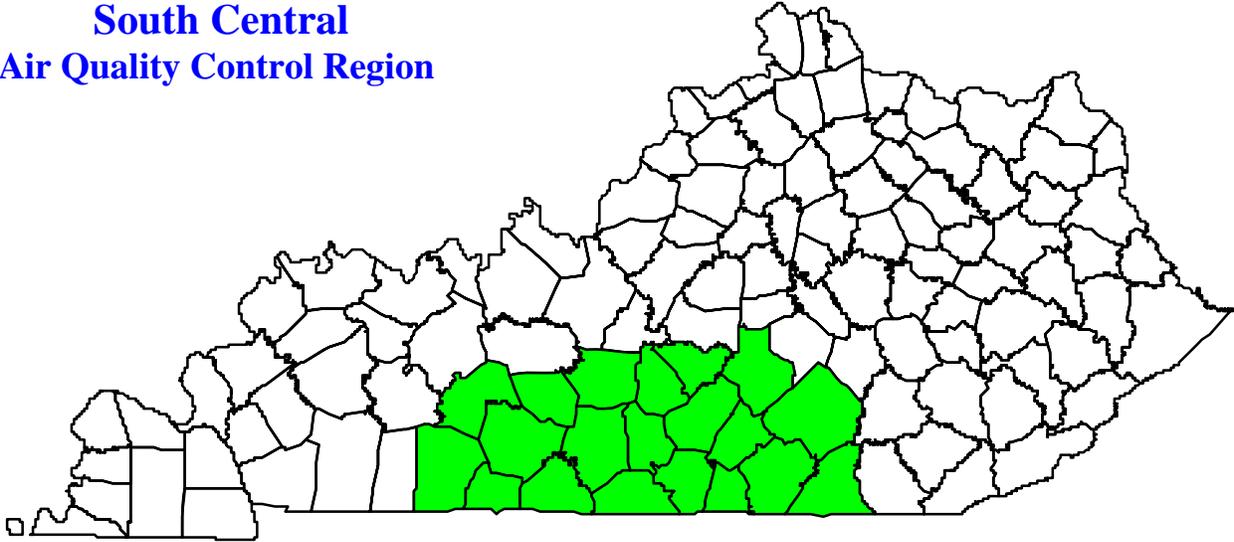
Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 2/24/00)

**South Central
Air Quality Control Region**



**AIR QUALITY SURVEILLANCE NETWORK
SOUTH CENTRAL REGION (105)**

AIRS ID	ADDRESS	PM_{2.5}	PM₁₀	SO₂	NO₂	CO	O₃	MET
21-199-0003	Somerset Gas Co., Clifty Street Somerset (Pulaski)		X(s)				X(s)	
21-213-0004	KY DOT Garage, KY 1008 Franklin (Simpson)						X(s)	X
21-227-0007	Kereiakes Park Bowling Green (Warren)	X(a) (c)						
21-227-0008	Oakland School Oakland (Warren)		X(I)	X(s) (I)	X(s)		X(s) (I)	
TOTAL		1	2	1	1	0	3	1

- (a) Speciation sampler included
- (c) Collocated Monitor
- (I) Air Quality Index Monitor
- (s) Special Purpose Monitor

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Somerset
(City)

Pulaski
(County)

Somerset Gas Company, Clifty St
(Address)

EPA SITE NO: 21-199-0003

REGION: (105) South Central

MAP LOCATION: UTM ZONE 16 **NORTHING** 4108.192 **EASTING** 711.990

DESIGNATION: SPM - Special Purpose Monitor

DATE ESTABLISHED: February 14, 1992

SITE DESCRIPTION:

The monitoring site is a trailer located on the grounds of the Somerset Gas Company Warehouse on Clifty Street. The sample inlets are 13 feet above ground level and 35 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A special purpose ozone monitor operates continuously using the UV photometric method of analysis. A special purpose PM₁₀ sampler operates for 24 hours every sixth day. Particulates are determined gravimetrically.

AREA REPRESENTATIVENESS:

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

MONITORING OBJECTIVES:

To judge compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 4/30/04)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Franklin
(City)

Simpson
(County)

DOT Garage, KY 1008
(Address)

EPA SITE NO: 21-213-0004

REGION: (105) South Central

MAP LOCATION: UTM ZONE 16 **NORTHING** 4062.295 **EASTING** 538.595

DESIGNATION: SPM - Special Purpose Monitor

DATE ESTABLISHED: June 19, 1991

SITE DESCRIPTION:

The monitoring site is a trailer located on the grounds of the DOT Garage on KY1008. The sample inlet is 13 feet above ground level and 200 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A special purpose ozone monitor operates continuously using the UV photometric method of analysis.

AREA REPRESENTATIVENESS:

The site represents population exposure on an urban scale.

MONITORING OBJECTIVES:

To judge compliance with and/or progress made toward meeting ambient air quality standards. To measure ozone levels upwind of Bowling Green and provide data on interstate ozone transport.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 12/8/00)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Bowling Green (City)	Warren (County)	Kereiakes Park, Fairview Avenue (Address)
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EPA SITE NO: 21-227-0007

REGION: (105) South Central

MAP LOCATION: UTM ZONE 16 **NORTHING** 4094.095 **EASTING** 551.762

DESIGNATION: SLAMS - State and Local Air Monitoring Station

DATE ESTABLISHED: January 1, 1999

SITE DESCRIPTION:

The site is located on a platform behind the tennis courts at Kereiakes Park. The sample inlets are 10 feet above ground level and 400 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A SLAMS PM_{2.5} particulate sampler operates for 24 hours every third day. A duplicate PM_{2.5} sampler and a PM_{2.5} speciation sampler operate for 24 hours every sixth day. Particulates are determined gravimetrically.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale.

MONITORING OBJECTIVES:

To determine compliance with and/or progress made toward meeting ambient air quality standards.

SITE APPROVAL STATUS:

Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 9/18/99)

Kentucky Department for Environmental Protection

AIR QUALITY SURVEILLANCE NETWORK

LOCATION:

Oakland (City)	Warren (County)	Oakland Elementary School (Address)
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EPA SITE NO: 21-227-0008

REGION: (105) South Central

MAP LOCATION: UTM ZONE 16 **NORTHING** 4199.050 **EASTING** 566.675

DESIGNATION: SLAMS - State and Local Air Monitoring Station (PM₁₀)
SPM - Special Purpose Monitor (Ozone, Sulfur dioxide, Nitrogen dioxide)
AQI - Air Quality Index Site

DATE ESTABLISHED: January 1, 2000

SITE DESCRIPTION:

The monitoring site is a trailer located on the grounds of the Oakland Elementary School. The sample inlets are 13 feet above ground level and 200 feet from the nearest road.

MONITORS, (Type, Analysis Method, Frequency of Sampling):

A continuously operating TEOM PM₁₀ particulate sampler provides 24-hour sample values for both daily index and SLAMS reporting. Particulates are determined gravimetrically. Special purpose ozone and sulfur dioxide monitors operate continuously using the UV photometric and UV fluorescent methods of analysis respectively. A special purpose nitrogen dioxide monitor operates continuously using the chemiluminescence method of analysis.

AREA REPRESENTATIVENESS:

The site represents population exposure on a neighborhood scale for particulates and on an urban scale for sulfur dioxide and nitrogen dioxide. The site represents maximum concentrations on an urban scale for ozone.

MONITORING OBJECTIVES:

To judge compliance with and/or progress made toward meeting ambient air quality standards. To provide pollution levels for daily index reporting.

SITE APPROVAL STATUS:

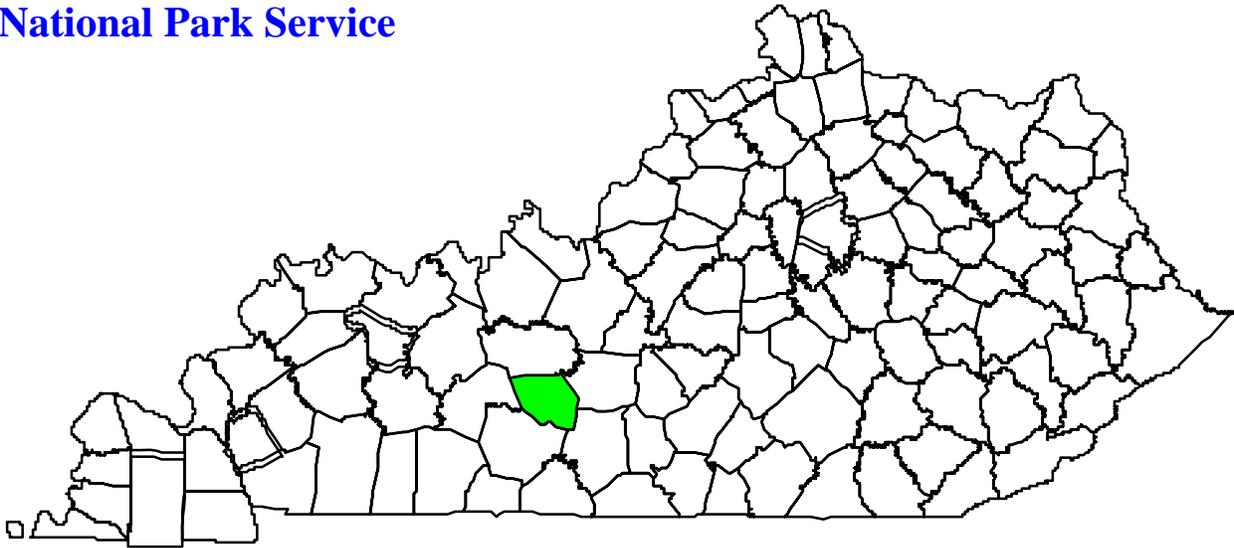
Site and monitors meet all design criteria for monitoring network.

QUALITY ASSURANCE STATUS:

All Quality Assurance procedures have been implemented.

(Rev. 4/30/04)

Appendix B
National Park Service



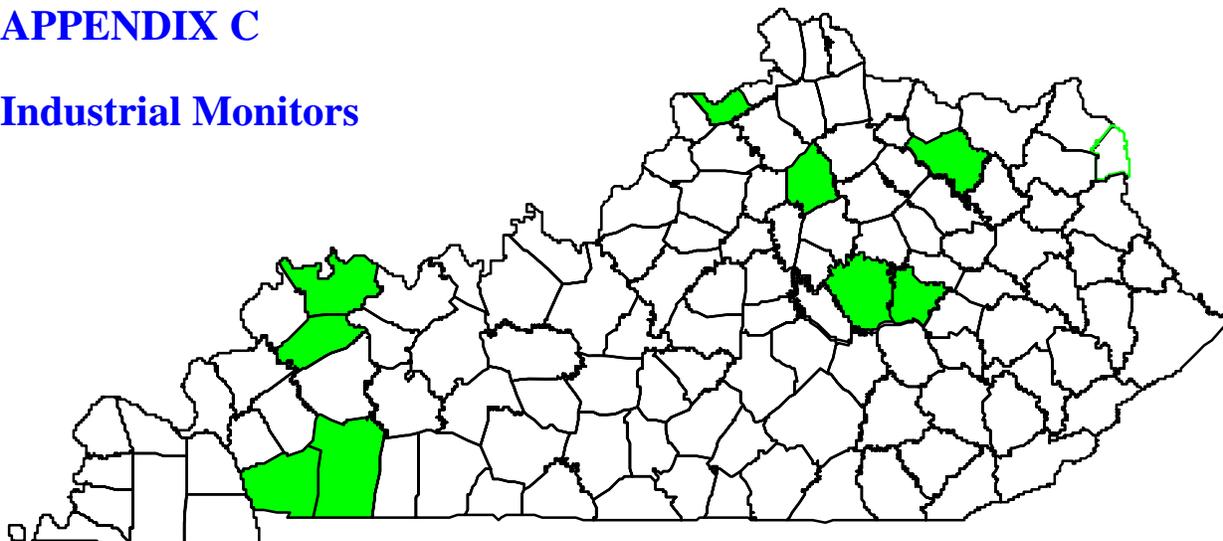
AIR QUALITY SURVEILLANCE NETWORK
NATIONAL PARK SERVICE

AIRS ID	ADDRESS	PM_{2.5}	PM₁₀	SO₂	NO₂	CO	O₃	MET
21-015-0003	Alfred Cook Road Mammoth Cave (Edmonson)	X		X	X	X	X	X
TOTAL		1	0	1	1	1	1	1

(Rev. 4/18/05)

APPENDIX C

Industrial Monitors



AIR QUALITY SURVEILLANCE NETWORK INDUSTRIAL MONITORS

AIRS ID	ADDRESS	PM _{2.5}	PM ₁₀	SO ₂	NO ₂	CO	O ₃
21-041-0004 ⁵	US 42 Ghent (Carroll)		X (collocated)		X		
21-041-0005 ⁵	US 42 Ghent (Carroll)		X				
21-047-0006 ¹	10800 Pilot Rock Road Hopkinsville (Christian)						X
21-065-9001 ⁶	100 EK Power Lane Irvine (Estill)			X			
21-069-9001 ⁶	455 Industrial Drive Flemingsburg (Fleming)						X
21-101-1010 ²	US 41 & KY 2096 Sebree (Henderson)			X			
21-101-1011 ²	KY 2097 Sebree (Henderson)			X			
21-151-90001 ⁶	246 Ford Road Richmond (Madison)			X			
21-209-0002 ³	4673 Muddy Ford Road Scott County						X
21-221-0013 ¹	Mulberry Flat Road LBL (Trigg)						X
21-233-0002 ²	Bell Gibson Road Webster County			X			
54-099-0003 ⁴	Spring Brook Drive Kenova (Wayne, WV)			X	X		X
54-099-0004 ⁴	Route 52 Neal (Wayne, WV)			X			
54-099-0005 ⁴	Big Sandy Road Neal (Wayne, WV)			X			
TOTAL		0	2	8	2	0	5

¹ – TVA

² – Western Kentucky Electric
(Rev. 4/18/05)

³ – Toyota

⁴ – Marathon-Ashland Petroleum

⁵ – North American Stainless

⁶ – East Kentucky Power