west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Earl Ray Tomblin, Governor
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www.wvdep.org

WVDEP 2015 Ambient Air Monitoring Network Design

On October 17, 2006, the US Environmental Protection Agency (EPA) published final amendments to 40CFR Part 53 and 58 "Revisions to Ambient Air Monitoring Regulations; Final Rule". This rule became effective on December 18, 2006. An excerpt of the EPA summation of the rule follows:

> "The purpose of the amendments is to enhance ambient air quality monitoring to better serve current and future air quality management and research needs… In addition, the final amendments modify the general monitoring network design requirements for minimum numbers of ambient air monitors to focus on populated areas with air quality problems and to reduce significantly the requirements for criteria pollutant monitors that have measured ambient air concentrations well below the applicable National Ambient Air Quality Standards. These amendments also revise certain provisions regarding monitoring network descriptions and periodic assessments, quality assurance, and data certifications…"

Under Part 58, Subpart B-Monitoring Network, § 58.10 Annual Monitoring Network Plan and Periodic Assessments (a)(1): " Beginning July 1, 2007, the State, or where applicable local, agency shall adopt and submit to the Regional Administrator an annual monitoring network plan which shall provide for the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations including FRM, FEM, and ARM monitors that are part of SLAMS, NCore stations, STN stations, State speciation stations, SPM stations, and/or, in serious, severe and extreme ozone nonattainment areas, PAMS stations, and SPM monitoring stations. The plan shall include a statement of purposes for each monitor and evidence that siting and operation of each monitor meets the requirements of appendices A, C, D, and E of this part, where applicable. The annual monitoring network plan must be made available for public inspection for at least 30 days prior to submission to EPA. "

The purpose of this document is to provide for the public inspection of the WV Department of Environmental Protection Division of Air Quality's (DAQ) ambient air monitoring network design for 2015. This public inspection period is open for 30 days from the date of posting on our website at www.dep.wv.gov/daq/. Any written comments received during the 30 day public inspection period, regarding this network design will be forwarded to USEPA Region 3 along with the network design document. The annual network design format will also be used to document changes to the state's $PM_{2.5}$ monitoring that would affect the location of a

violating $PM_{2.5}$ monitor. Except for circumstances not anticipated during this review period, such as inadequate federal or state funding, leasing issues, site maintenance issues, personnel resource issues or equipment failure no other *intentional* changes are expected to be made, at this time, to the $PM_{2.5}$ monitoring network or the criteria pollutant monitoring network/stations during the next 12 months except those that are discussed within this document. All of the monitoring sites are leased and those leases are subject to periodic renewals which can affect the DAQ's ability to retain a monitoring site location. The prior year's ambient air monitoring data is certified by May 1st each year. Any proposed changes mentioned in this document will only be made after this agency has provided notification to USEPA Region 3. The proposed changes are listed herein so that the public may have an opportunity to comment on any possible network modifications.

In the pages that follow, each individual monitoring site is listed by county along with a statement as to whether it meets the requirements of Part 58, the Air Quality Subsystem (AQS) site ID number, site location information, sampling and analytical method for each parameter, the Metropolitan Statistical Area (MSA) that is represented by the site, proposed site changes and any other general comments regarding the site. Other pertinent information such as latitude/longitude, site purpose, the monitor's objective/site type and representative scale is listed for each site.

Please send written comments to:

Tim J. Carroll, Assistant Director
Air Monitoring/Laboratory
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Comments may also be submitted via email to: tim.j.carroll@wv.gov . All comments will be forwarded to EPA Region 3 along with this document.

For additional information and to view data publicly available from the AQS data system please visit www.epa.gov/airdata/ . For a copy of the latest WVDEP-DAQ annual air monitoring report please visit www.dep.wv.gov/daq/.

To review the September 2006 EPA Air Monitoring rule please visit www.epa.gov/pm/actions.html.

Berkeley County

Site: Martinsburg Ball Field
Location: Martinsburg Ball Field, Martinsburg, Berkeley County, WV
AQS ID: 54-003-0003
MSA: Hagerstown-Martinsburg, MD-WV
Latitude: 39.448001
Longitude:-77.96413

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Current site established in 1999 to provide air quality monitoring in Berkeley County and the Eastern Panhandle of WV.

Parameters monitored, sampling method, scale and purpose:

Particulates:
$PM_{2.5}$ sequential Lo-Volume sampler, Federal Reference Method, samples once every three days. Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/9/2014 and 10/6/2014
USEPA performance evaluation audit conducted 6/24/2014

Gaseous:
Ozone – UV absorption continuous gas monitor operated during ozone season April – October
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 9/16/2014
USEPA national performance audit conducted 11/7/2014

Brooke County

Site: Mahan Lane
Location: Mahan Lane, Follansbee, Brooke County, WV
AQS ID: 54-009-0005
MSA: Steubenville-Weirton OH-WV
Latitude 40.34102
Longitude -80.59664

Comment: Site does not comply with Appendix E of Part 58. There continues to be infringement of tree growth that is outside of site leased area which is affecting the ideal monitor distance from the drip line. The DAQ is also experiencing leasing issues with this site. While the DAQ continues to explore alternate siting options the availability of sites that meet all the siting criteria limited. Current site established in 1983 to provide air quality monitoring in an industrialized area of Brooke County.

Parameters monitored, sampling method, scale and purpose:

Particulates:
PM_{10} Hi-Volume sampler, Size Selective Inlet, Federal Reference Method, utilizes 8”x10” quartz filters, samples once every six days. Collocated PM_{10} Hi-Volume sampler runs once every 12 days. Samples analyzed by gravimetric analysis.
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State audit conducted 5/8/2014 and 10/24/2014

$PM_{2.5}$ sequential Lo-Volume sampler, Federal Reference Method, samples once every three days. Samples analyzed by gravimetric analysis.
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State audit conducted 4/16/2014 and 9/24/2014
USEPA performance evaluation audit conducted 3/12/2014 (re-audited on 4/23/2014)

Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State accuracy audit conducted 5/30/2014

Site: McKims Ridge
Location: McKims Ridge Road, Brooke County, WV
AQS ID: 54-009-0007
MSA: Steubenville-Weirton OH-WV
Latitude 40.38966
Longitude -80.58624

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1997 as part of a dispersion model evaluation study and to provide additional air quality monitoring in Brooke and Hancock Counties in WV.

Parameters monitored, sampling method, scale and purpose:

Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State accuracy audit conducted 11/3/2014

Site: Marland Heights
Location: Marland Heights, Weirton, Brooke County, WV
AQS ID: 54-009-0011
MSA: Steubenville-Weirton, OH-WV

Latitude 40.394500
Longitude -80.612034

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1992 to provide air quality monitoring in an industrial area of Brooke and Hancock Counties in WV.

Parameters monitored, sampling method, scale and purpose:

Particulates:
Tapered Element Oscillating Micro-Balance (TEOM) Series 1400/1400a continuous PM_{10} monitor.
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State flow rate audit conducted 4/30/2014 and 11/12/2014

$PM_{2.5}$ sequential Lo-Volume sampler, Federal Reference Method, samples once every three days. A collocated $PM_{2.5}$ monitor samples every 12th day. Samples analyzed by gravimetric analysis.
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State audit conducted 4/16/2014 and 9/24/2014
USEPA audit conducted 3/12/2014

Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State accuracy audit conducted 2/24/2014

Carbon Monoxide – IR Gas Filter Correlation continuous CO analyzer

Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State accuracy audit conducted 2/24/2014

Cabell County

Site: Huntington
Location: Marshall University, Henderson Center, Huntington, Cabell County, WV
AQS ID: 54-011-0006
MSA: Huntington-Ashland
Latitude 38.424510
Longitude -82.425323

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Current site established in 1982 to provide air quality monitoring in an industrial area of Cabell County and the state's second most populous city in WV.

Parameters monitored, sampling method, scale and purpose:

Particulates:
$PM_{2.5}$ sequential Lo-Volume sampler, Federal Reference Method, samples once every three days. A collocated sequential $PM_{2.5}$ monitor samples every 12th day. Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/9/2014 and 10/22/2014
USEPA performance evaluation audit conducted 8/26/2014

Due to operator safety and site access difficulties the DAQ is working to move this site in to a nearby location. All but the Pb monitors would be relocated. The $PM_{2.5}$ monitor is in compliance with both the 24-hour and annual NAAQS.

Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor

Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 11/22/2014

Ozone – UV absorption continuous gas monitor operated during ozone season April – October
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 6/10/2014

Lead (Pb):
A Total Suspended Particulate (TSP) lead monitor was installed at this site and the first sample was collected in February 2012.

A TSP Pb Tisch Hi-Volume TSP sampler collects samples once every six days on an 8”x10” glass fiber filter. A collocated Pb Hi-Volume TSP sampler runs once every twelve days. Samples analyzed for Pb using USEPA Region 9 Federal Equivalent Method for ICP-MS.
Representative siting scale: Urban
Monitoring objective/site type: Source oriented
State audit conducted 7/3/2014 and 12/8/2014
USEPA performance evaluation audit conducted 8/26/2014

Greenbrier County

Site: Sam Black Church
Location: Department of Highway Garage, Sam Black Church, Greenbrier County, WV
AQS ID: 54-025-0003
MSA: NA
Latitude 37.908439
Longitude -80.632812

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Current site established in 1999 to continue historical ozone air quality monitoring that started in 1984 in Greenbrier County, a rural area of WV.

Parameters monitored, sampling method, scale and purpose:

Gaseous:
Ozone – UV absorption continuous gas monitor operated during ozone season April – October
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 6/4/2014

Hancock County

Site: New Manchester
Location: New Manchester Elementary School, New Manchester, Hancock County, WV
AQS ID: 54-029-0005
MSA: Steubenville-Weirton, OH-WV
Latitude 40.529060
Longitude -80.576230

Comment: Due to infringement of tree growth outside of leased area, the site does not comply with Appendix E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1972 to provide air quality monitoring in Hancock County, WV.

Parameters monitored, sampling method, scale and purpose:

Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor

Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 3/10/2014

Site: New Cumberland
Location: RD#1, Carothers Road, New Cumberland, Hancock County, WV
AQS ID: 54-029-0007
MSA: Steubenville-Weirton, OH-WV
Latitude 40.460160
Longitude -80.576769

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1990 as part of a multi-state SO_2 study (PA-WV-OH) and to provide air quality monitoring in Hancock County, WV.

Parameters monitored, sampling method, scale and purpose:

Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 8/25/2014

Site: Chester
Location: Allison Elementary School, 647 Railroad Street, Chester, Hancock County, WV
AQS ID: 54-029-0008
MSA: Steubenville-Weirton, OH-WV
Latitude 40.615730
Longitude -80.560132

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1991 to provide air quality monitoring in northern Hancock County, WV.

Parameters monitored, sampling method, scale and purpose:

Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State accuracy audit conducted 11/3/2014

Periodic special project discretionary collection of samples for TSP metals also takes place at this site.

Site: Summit Circle
Location: Summit Circle, Weirton, Hancock County, WV
AQS ID: 54-029-0009
MSA: Steubenville-Weirton, OH-WV
Latitude 40.427420
Longitude -80.592500

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1992 provide air quality monitoring in an industrial area of Hancock County, WV.

Parameters monitored, sampling method, scale and purpose:

Particulates:
Tapered Element Oscillating Micro-Balance (TEOM) Series 1400/1400a continuous PM_{10} monitor.
Representative siting scale: Urban
Monitoring objective/site type: Source impact
State audit conducted 4/30/2014 and 10/27/2014

$PM_{2.5}$ sequential sampler, Federal Reference Method, samples once every three days. Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
Note: Sampler began operation at this in 2015. No state or USEPA audits were conducted on this sampler during 2014.Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented
State accuracy audit conducted 8/18/2014

Ozone – UV absorption continuous gas monitor operated during ozone season April – October
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
Note: Monitor began operation at this in 2015. Therefore, no state or USEPA audits were conducted on this monitor during 2014.

Carbon Monoxide – IR Gas Filter Correlation continuous CO analyzer
Representative siting scale: Neighborhood
Monitoring objective/site type: Source impact
State accuracy audit conducted 8/18/2014

Proposed Change: With the closure of the Oak Street site, $PM_{2.5}$ and ozone monitoring was established at Summit Circle effective January 1, 2015 and April 1, 2015 respectively. The site retained the existing monitors for continuous PM_{10}, SO_2 and CO.

Site: Lawrenceville
Location: Community Park and Tyrone Road, Lawrenceville, Hancock County, WV
AQS ID: 54-029-0015
MSA: Steubenville-Weirton, OH-WV
Latitude 40.618340

Longitude -80.540799

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site also has a 10 meter meteorological tower. Site established in in 1995 in response to the 1992 installation of Waste Technology Industries (WTI), now known as Heritage Thermal Services, and to provide air monitoring in upper Hancock County, WV.

Parameters monitored, sampling method, scale and purpose:

Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 9/10/2014

Periodic special project for the collection of discretionary TSP metals also take place at this site.

Site: Oak Street
Site decommissioned at the end of December 2014. Ozone and $PM_{2.5}$ monitoring relocated to Summit Circle site. CO, SO_2 and PM_{10} monitoring discontinued at Oak Street.

$PM_{2.5}$ state audit conducted 4/16/2014 and 9/24/2014
PM_{10} state audit conducted 5/8/2014 and 10/24/2014
CO, SO2, state audit conducted 5/29/2014
O3 state audit conducted 8/18/2014

Harrison County

Site: Clarksburg
Location: Washington Irving Junior High School, Clarksburg, Harrison County, WV
AQS ID: 54-033-0003
MSA: NA
Latitude 39.278056
Longitude -80.342500

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1997 to monitor $PM_{2.5}$ in Harrison County, WV.

Parameters monitored, sampling method, scale and purpose:

Particulates:
$PM_{2.5}$ sequential Lo-Volume sampler, Federal Reference Method, samples once every three days. Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/22/2014 and 10/7/2014
USEPA performance evaluation audit conducted 8/27/2014

Kanawha County

Site: Charleston
Location: 209 Morris Street, Charleston, Kanawha County, WV
AQS ID: 54-039-0010
MSA: Charleston, WV

Latitude 38.345620
Longitude -81.628422

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Current site established in 1999 to provide air quality monitoring in Kanawha County (the state's largest county) and the largest city in WV.

Parameters monitored, sampling method, scale and purpose:

Particulates:
Tapered Element Oscillating Micro-Balance (TEOM) Series 1400/1400a continuous PM_{10} monitor. Data used primarily for Air Quality Index purposes.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/24/2014 and 11/2/2014

$PM_{2.5}$ sequential sampler, Federal Reference Method, samples once every three days.
Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/24/2014 and 11/12/2014

Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 5/29/2014
Ozone – UV absorption continuous gas monitor operated during ozone season April – October

Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 5/30/2014

Toxics
TSP metals, certain Volatile Organic Compounds and Carbonyls
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented

Other
USEPA RadNet Monitor

***Proposed change*:** In order to reallocate the resources necessary to operate the NCore site, the Baptist Temple site will be combined with the NCore and the Baptist Temple site decommissioned. In addition to the monitoring that will be performed at the NCore site, the RadNet monitoring would be moved from Baptist Temple to the NCore site. Because of pending analytical cost increases, toxics monitoring will need to be re-evaluated.

Site: NCore
Location: 1436 Dixie St., Charleston, Kanawha County, WV
AQS ID: 54-039-0020
MSA: Charleston, WV
Latitude 38.34626
Longitude -81.62110

Comment: Site complies with Appendix A, C, D, E of Part 58. Once fully operational and generating valid data, site will replace Baptist Temple site. Site required to be established by USEPA as part of the national NCore multi-pollutant monitoring network.

Parameters monitored, sampling method, scale and purpose:

Particulates:
MetOne BAM 1020 continuous $PM_{2.5}$ monitor
Representative siting scale: Urban

Monitoring objective/site type: Population oriented

$PM_{2.5}$ sequential sampler, Federal Reference Method, will sample once every three days.
Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

PM_{10} sequential sampler, Federal Reference Method, will sample once every three days.
Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

Gaseous:
Sulfur Dioxide – UV fluorescent continuous trace gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

Ozone – UV absorption continuous trace gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

NO/NO_y – Chemiluminescence continuous trace gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

Carbon Monoxide –Gas filter correlation continuous trace gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

Other
Ultra Sonic meteorological sensor

Comment: This is a new site and the site is not yet fully operational. Monitors at the site have not undergone any audits by either the state or USEPA. Currently, $PM_{2.5}$, SO_2, and O_3 are still being monitored at the nearby Baptist Temple site. The Baptist Temple site will be decommissioned once the NCore site is fully operational.

Site: Guthrie
Location: Guthrie Agricultural Center, Charleston, Kanawha County, WV
AQS ID: 54-039-0011
MSA: Charleston, WV
Latitude 38.448611
Longitude -81.683889

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is not suitable for NAAQS comparisons since it only consists of a speciation trends network (STN) monitor; criteria pollutant monitoring is not conducted at this site. Site established in 2003 as part of the national Speciation Trends Network.

Parameters monitored, sampling method, scale and purpose:

$PM_{2.5}$ Speciation
Speciation Trends Network (STN) site equipped with Met One Super SASS and URG 3000N Carbon sampler. Both sample on an every three day schedule.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

***Proposed change*:** Once the NCore site is fully operational, the STN sampler will be relocated from Guthrie to the NCore site and the Guthrie site will be decommissioned.

Site: South Charleston
Location: South Charleston Public Library 312 4th Ave., South Charleston, Kanawha County, WV
AQS ID: 54-039-1005
MSA: Charleston, WV
Latitude 38.36618
Longitude -81.69372611

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1974 to provide air quality monitoring in Kanawha County, WV.

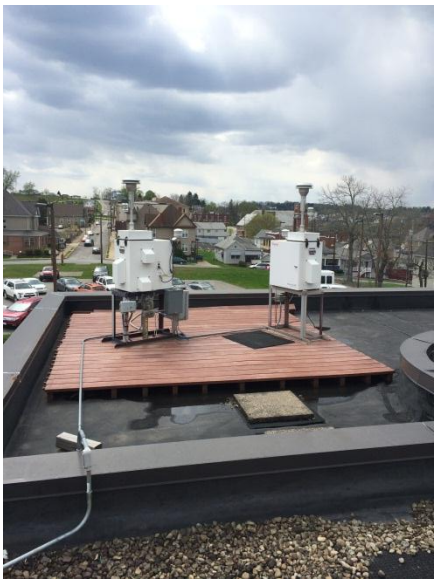
Parameters monitored, sampling method, scale and purpose:

Particulates
$PM_{2.5}$ sequential Low-Volume sampler, Federal Reference Method. Samples once every three days. Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State f audit conducted 4/22/2014 and 10/21/2014

$PM_{2.5}$ Speciation
As part of a national cost savings analysis, speciation monitoring at this site was defunded by USEPA and speciation monitoring was discontinued.

Marion County

Site: Fairmont
Location: 401 Guffey Street, Fairmont, Marion County, WV
AQS ID: 54-049-0006
MSA: NA
Latitude 39.48148
Longitude -80.13467



Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 2000 to monitor $PM_{2.5}$ in Marion County, WV.

Parameters monitored, sampling method, scale and purpose:

Particulates:
$PM_{2.5}$ sequential sampler, Federal Reference Method, samples once every three days.
Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/22/2014 and 10/9/2014

Marshall County

Site: Moundsville
Location: Moundsville National Guard Armory, Moundsville, Marshall County, WV
AQS ID: 54-051-1002
MSA: Wheeling, WV-OH
Latitude 39.915970
Longitude -80.734057

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1983 to provide air quality monitoring in Marshall County, WV.

Parameters monitored, sampling method, scale and purpose:

Particulates:
$PM_{2.5}$ sequential sampler, Federal Reference Method. Samples once every three days. Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/18/2014 and 9/19/2014
USEPA performance evaluation audit conducted 3/12/2014

Tapered Element Oscillating Micro-Balance (TEOM) Series 1400ab continuous $PM_{2.5}$ Non-FRM/FEM monitor with Filter Dynamic Measurement System (FDMS).
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State flow rate audit conducted 4/30/2014 and 10/23/2014

$PM_{2.5}$ Speciation
Chemical Speciation Network site. Met One Super SASS and URG 3000N Carbon sampler. Both sample on an every three day schedule
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 5/27/2014

Monongalia County

Site: Morgantown
Location: Morgantown Airport, Morgantown, Monongalia County, WV
AQS ID: 54-061-0003
MSA: NA
Latitude 39.649444
Longitude -79.921111

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1983 to provide air quality monitoring in Monongalia County, WV.

Parameters monitored, sampling method, scale and purpose:

Particulates:
$PM_{2.5}$ sequential sampler, Federal Reference Method. Samples once every three days.
Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/10/2014 and 10/9/2014
USEPA performance evaluation audit conducted 6/25/2014

Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 10/23/2014
USEPA national performance audit conducted 6/25/2014

Ozone – UV absorption continuous gas monitor operated during ozone season April – October
Representative siting scale: Urban
Monitoring objective/site type: Population oriented

State accuracy audit conducted 9/17/2014
USEPA national performance audit conducted 6/25/2014

Toxics
TSP metals, certain Volatile Organic Compounds and Carbonyls.
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented

Proposed changes: Because of pending analytical cost increases toxics monitoring will need to be re-evaluated.

Ohio County

Site: Wheeling
Location: Warwood Water Treatment Plant, Wheeling, Ohio County, WV
AQS ID: 54-069-0010
MSA: Wheeling, WV-OH
Latitude 40.11488
Longitude -80.70097

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Current site established in 2005 to continue to provide air quality monitoring in Ohio County, WV.

Parameters monitored, sampling method, scale and purpose:
Particulates:
$PM_{2.5}$ sequential sampler, Federal Reference Method, samples once every three days.
Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/16/2014 and 9/19/2014
USEPA performance evaluation audit conducted 3/12/2014

Gaseous:
Ozone – UV absorption continuous gas monitor operated during ozone season April – October
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 5/7/2014

Toxics
TSP metals, certain Volatile Organic Compounds and Carbonyls.
Representative siting scale: Neighborhood
Monitoring objective/site type: Population oriented

***Proposed change*:** Because of pending analytical cost increases toxics monitoring will need to be re-evaluated.

Raleigh County

Site: Beckley
Location: Maxwell Hill Elementary School, Beckley, Raleigh County, WV
AQS ID: 54-081-0002
MSA: NA
Latitude 37.807940
Longitude -81.197461

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1998 to provide $PM_{2.5}$ monitoring in Raleigh County, WV.

Parameters monitored, sampling method, scale and purpose:

Particulates:
$PM_{2.5}$ sequential sampler, Federal Reference Method, samples once every three days.
Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 1/15/2014

Comment: Due personnel resource shortages, operation of this site has been temporarily suspended. The $PM_{2.5}$ sampler at this site is in compliance with both the 24-hour and annual NAAQS.

Wood County

Site: Vienna
Location: Neale Elementary School, Wood County, WV
AQS ID: 54-069-0010
MSA: Parkersburg-Marietta, WV-OH
Latitude 39.323660
Longitude -81.552196

Comment: Site complies with Appendix A, C, D, E of Part 58. This site is suitable for NAAQS comparisons. Site established in 1975 to provide air quality monitoring in Wood County, WV.

Parameters monitored, sampling method, scale and purpose:

Particulates:
$PM_{2.5}$ sequential sampler, Federal Reference Method. Samples once every three days. Samples analyzed by gravimetric analysis.
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State audit conducted 4/30/2014

Gaseous:
Sulfur Dioxide – UV fluorescent continuous gas monitor
Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 8/13/2014
USEPA national performance audit conducted 8/27/2014

Ozone – UV absorption continuous gas monitor operated during ozone season April – October

Representative siting scale: Urban
Monitoring objective/site type: Population oriented
State accuracy audit conducted 6/11/2014
USEPA national performance audit conducted 8/27/2014